Form 3160-3 (August, 2007)

# **\**

FORM APPROVED OMB NO. 1004-0137 Expires: July 31, 2010

5. Lease Serial No.

	UTU-0575
6.	If Indian, Allottee or Tribe Name

APPLICATION F	TOR.	PERMIT TO	DRILL	OD DEENTED
ALLICATION	'UK	FERMIN IV		UKKEENIEK

**UNITED STATES** 

DEPARTMENT OF THE INTERIOR

**BUREAU OF LAND MANAGEMENT** 

		UTE
1a. Type of Work: DRILL	REENTER	7. If Unit or CA Agreement, Name and No. 891008900A
1b. Type of Well: X Gas Well Other	X Single Zone Multiple 2	8. Lease Name and Well No.  Zone NBU 921-20IT
2. Name of Operator		9. API Well No.
Kerr-McGee Oil & Gas O	Onshore, LP	43-047-40136 10. Field and Pool, or Exploratory
3a. Address	3b. Phone No. (include area code)	10. Field and Pool, or Exploratory
P.O. Box 173779 Denver, CO 80217-3779	720.929.6226	Natural Buttes Field
4. Location of well (Report location clearly and In account	rdance with any State requirements.	*) 11. Sec.,T.,R.,M.,or Blk.and Survey or Area
At surface 1902 FSL 822 FEL NE SE Lat. 622173X At proposed prod. zone N/A 44306904	40.019519 Long109.5684 40. 019473 -104. 568385	Sec 20 T 9S R 21E
14. Distance in miles and direction from the nearest town	or post office*	12. Cou State
11.9 miles south of Ouray, Utah		Uintah Utah
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. unit line, if any)	16. No. of acres in lease	17. Spacing Unit dedicated to this well 40
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth 10,000'	20. BLM/ BIA Bond No. on file WYW000291/RLB0005239
21. Elevations (Show whether DF. RT, GR, etc.)	22. Aproximate date work w	Esti vill start*mat
4829 GR	ASAP	10 days
	24. Attachments	
The following, completed in accordance with the requirement	nents of Onshore Oil and Gas Order	No. 1 shall be attached to this form:
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan ( if the location is on National For SUPO shall be filed with the appropriate Forest Service</li> </ol>	item 20 above). rest System Lan 5. Operator certifica	pecific information and/ or plans as may be required by
25. Signature	Name (Printed/ Typed) Kevin	МсІлтуте
Title Regulatory Analyst	<u> </u>	RECEIVED
Approved For Signature	Name (Printed/Typed)	JUN 0 6 2008

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

06-17-08

Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Title

DIV. OF OIL, GAS & MINING

#### Kerr-McGee Oil & Gas Onshore LP T9S. R21E. S.L.B.&M. Well location, NBU #921-20IT, located as shown in the NE 1/4 SE 1/4 of Section 20, T9S, R21E, N89'53'17"W - 2648.48' (Meas.) N89'54'12"W - 2634.90' (Meas.) S.L.B.&M., Uintah County, Utah. 2006 Alum. Cop. 2006 Alum. Cap 2006 Alum. Cap Pile of Stones 0.3' High, Pile of Stones Flush W/1.5' High BASIS OF ELEVATION Pile of Stones TWO WATER TRIANGULATION STATION LOCATED IN THE NW 1/4 OF SECTION 1, T10S, R21E, S.LB.&M., TAKEN FROM THE BIG PACK MTN NE QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE SERIES (TOPOGRAPHICAL MAP) PUBLISHED BY THE UNITED 23 STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. 2657. SAID ELEVATION IS MARKED AS BEING 5238 FEET. BASIS OF BEARINGS NO0'00'35"W W00003118"W BASIS OF BEARINGS IS A G.P.S. OBSERVATION. 2006 Alum. Cap 2006 Alum. Cap 0.3' High, Pile 0.3' High, Pile of Stones of Stones NBU #921-20IT Elev. Üngraded Ground = 4829 822' 25 2657. SCALE W.00.03'16"W THIS IS TO CERTIFY THAT THE ABOVE & NO0'02'18 FIELD NOTES OF ACTUAL SURVEYS MAL SUPERVISION AND THAT THE SAME A BEST OF MY KNOWLEDGE AND BELLEI 2006 Alum. Cap 2006 Alum. Cap 0.3' High, Pile 0.3' High, Pile of Stones of Stones 2006 Alum. Cap N89°54'42"W - 2640.81' (Meas.) \$89'55'13"W - 2636.17' (Meas.) 0.5' High, Pile of Stones UINTAH ENGINEERING & LAND SURVEYING 85 SOUTH 200 EAST VERNAL UTAH 84078 (NAD 83) (435) 789-1017 LATITUDE = $40^{\circ}01'10.14''$ LEGEND: (40.019483) SCALE DATE SURVEYED: DATE DRAWN: LONGITUDE = 109'34'08.74'' (109.569094) 1" = 1000'4-17-08 5-13-08 = 90" SYMBOL REFERENCES PARTY (NAD 27) D.K. C.K. C.P. G.L.O. PLAT PROPOSED WELL HEAD. LATITUDE = $40^{\circ}01'10.27''$ (40.019519) WEATHER LONGITUDE = $109^{\circ}34'06.26''$ (109.568406) = SECTION CORNERS LOCATED. COOL Kerr McGee Oil & Gas Onshore LP

### NBU 921-20IT NESE Sec. 20, T9S R29E UINTAH COUNTY, UTAH UTU-0575

#### **ONSHORE ORDER NO. 1**

#### DRILLING PROGRAM

#### 1. <u>Estimated Tops of Important Geologic Markers</u>:

<u>Formation</u>	<u>Depth</u>
Uinta	0- Surface
Green River	1593'
Top of Birds Nest Water	1874'
Mahogany	2232'
Wasatch	4937'
Mesaverde	7879'
MVU2	8845'
MVL1	9415'
TD	10,000'

#### 2. Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

Substance	<u>Formation</u>	<u>Depth</u>
	Green River	1593'
	Top of Birds Nest Water	1874'
	Mahogany	2232'
Gas	Wasatch	4937'
Gas	Mesaverde	7879°
Gas	MVU2	8845'
Gas	MVL1	9415'
Water	N/A	
Other Minerals	N/A	

#### 3. <u>Pressure Control Equipment</u> (Schematic Attached)

Please see the Natural Buttes Unit Standard Operating Procedure (SOP).

#### 4. Proposed Casing & Cementing Program:

Please see the Natural Buttes Unit SOP.

#### 5. <u>Drilling Fluids Program</u>:

Please see the Natural Buttes Unit SOP.

#### 6. Evaluation Program:

Please see the Natural Buttes Unit SOP.

#### 7. <u>Abnormal Conditions</u>:

Maximum anticipated bottomhole pressure calculated at 10,000° TD, approximately equals 6200 psi (calculated at 0.62 psi/foot).

Maximum anticipated surface pressure equals approximately 4000 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

#### 8. <u>Anticipated Starting Dates:</u>

Drilling is planned to commence immediately upon approval of this application.

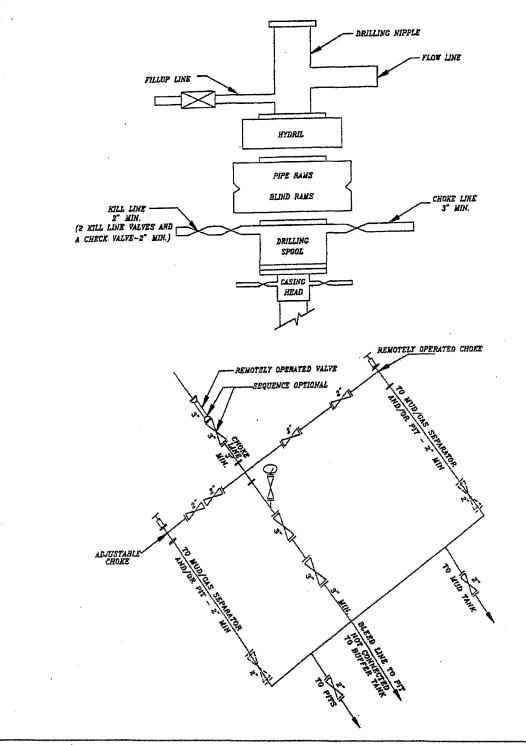
#### 9. <u>Variances:</u>

Please see Natural Buttes Unit SOP.

#### 10. Other Information:

Please see Natural Buttes Unit SOP.

#### **EXHIBIT A**



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

# NBU 921-20IT NESE Sec. 20, T9S R29E UINTAH COUNTY, UTAH UTU-0575

#### ONSHORE ORDER NO. 1

#### **MULTI-POINT SURFACE USE & OPERATIONS PLAN**

#### 1. Existing Roads:

Refer to the attached location directions.

Refer to Topo Maps A and B for location of access roads within a 2-mile radius.

#### 2. Planned Access Roads:

Please see the Natural Buttes Unit Standard Operating Procedure (SOP).

Approximately 1.0 mi +/- of new access road. Please refer to the attached Topo Map B.

#### 3. Location of Existing Wells Within a 1-Mile Radius:

Please refer to Topo Map C.

#### 4. Location of Existing & Proposed Facilities:

Please see the Natural Buttes Unit SOP.

Existing pipeline for Cige # 70 will be utilized for this twin location.

All facilities will be painted within six months of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) will be excluded. The requested color is Carlsbad Canyon Brown (2.5Y 6/2), a non-reflective earthtone.

#### 5. <u>Location and Type of Water Supply:</u>

Please see the Natural Buttes SOP.

#### 6. Source of Construction Materials:

Please see the Natural Buttes SOP.

#### 7. <u>Methods of Handling Waste Materials</u>:

Please see the Natural Buttes SOP.

Any produced water from the proposed well will be contained in a water tank and will then be hauled By truck to one of the pre-approved disposal sites: RNI, Sec. 5, T9S, R22E, NBU #159, Sec. 35, T9S, R21E, Ace Oilfield, Sec. 2, T6S, R20E, MC&MC, Sec. 12, T6S, R19E, Pipeline Facility, Sec. 36, T9S, R20E, Goat Pasture Evaporation Pond, SW/4 Sec. 16, T10S, R22E, Bonanza Evaporation Pond, Sec. 2, T10S, R23E.

#### 8. Ancillary Facilities:

Please see the Natural Buttes SOP.

#### 9. Well Site Layout: (See Location Layout Diagram)

The attached Location Layout Diagram describes drill pad cross-sections, cuts and fills, and locations of the mud tanks, reserve pit, flare pit, pipe racks, trailer parking, spoil dirt stockpile(s), and surface material stockpile(s).

Please see the attached diagram to describe rig orientation, parking areas, and access roads.

Culverts will be installed where needed.

A run off diversion for drainage will be constructed where needed.

The reserve pit will be lined. When the reserve pit is closed the pit liner will be buried below plow depth.

Location size may change prior to the drilling of the well due to the current rig availability. If the proposed location is not large enough to accommodate the drilling rig. The location will be resurveyed and a form 3160-5 will be submitted.

#### 10. Plans for Reclamation of the Surface:

Please see the Natural Buttes SOP.

#### 11. Surface Ownership:

The well pad and access road are located on lands owned by:

Ute Indian Tribe P.O. Box 70 Fort Duchesne, Utah 84026 (435) 722-5141

#### 12. Other Information:

A Class III Archaeological Survey Report has been conducted for this location and submitted to the Ute Indian Tribe prior to the on-site inspection.

This location is not within 460' from the boundary of the Natural Buttes Unit, nor is it within 460' of any non-committed tract lying within boundaries of the unit.

#### 13. <u>Lessee's or Operator's Representative & Certification:</u>

Kevin McIntyre Regulatory Analyst Kerr-McGee Oil & Gas Onshore LP P.O. Box 173779 Denver, CO 80217-3779 (720) 929-6226 Randy Bayne Drilling Manager Kerr-McGee Oil & Gas Onshore LP 1368 South 1200 East Vernal, UT 84078 (435) 781-7018

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under the terms and conditions of the lease for the operations conducted upon leased lands.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Indian Affairs Nationwide Bond #RLB0005239, Bureau of Land Management Nationwide Bold #WYB000291 and State of Utah Bond #RLB0005237.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed by the Operator, its contractors, and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

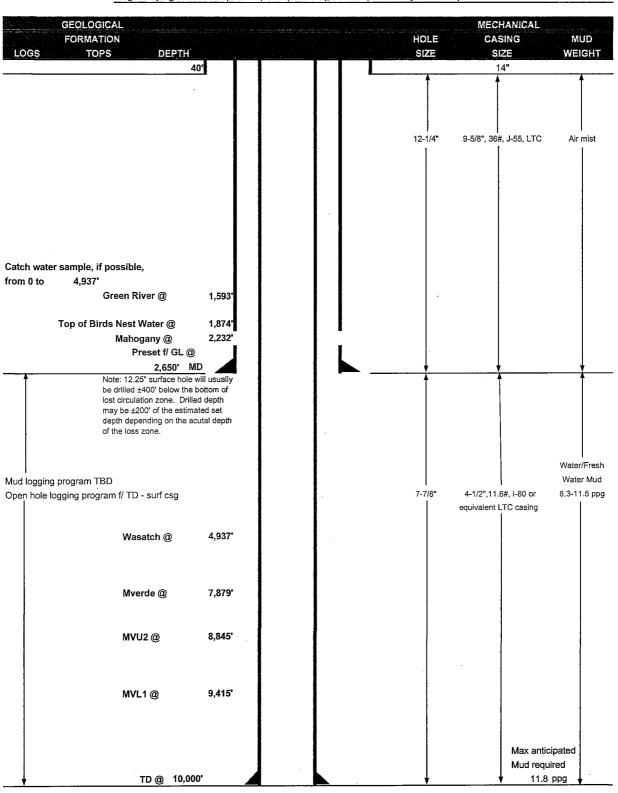
Kevin McIntyre 6/5/2008

Date



# KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPA	NY NAME K	ERR-McGE	E OIL & GAS ON	NSHORE LP		DATE	June 5, 2	2008		
WELL N	AME 1	IBU 921-2	20IT			TD	10,000'	MD/TVD		
FIELD	Natural Butte	\$	COUNTY Uint	ah	STATE	Utah	ELEVATION	4,829' GL	K	3 4,844'
SURFAC	CE LOCATION	NESE 190	2' FSL & 822' FE	EL Sec. 29, T	9S, R21E	<b>E</b>			BHL	Straight Hole
		Latitude:	40.019519	Longitude	e: -10	9.568406		NAD 27		
OBJECT	IVE ZONE(S)	Wasatch/N	/lesaverde							
ADDITIONAL INFO Regulatory Agencies: Tribe (Surface) BLM (Minerals), UDOGM, Tri-Count					ri-County Health	n Dept.				







#### CASING PROGRAM

									ESIGN FACT	ORS
	SIZE	11	VTERV.	AL	WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION
CONDUCTOR	14"		0-40'							
	·				:			3520	2020	453000
SURFACE	9-5/8"	0	to	2,650'	36.00	J-55	LTC	0.89	1.63	5.42
					1. 2	'		7780	6350	201000
PRODUCTION	4-1/2"	0	to	10000	11.60	I-80	LTC	1.98	1.03	1.99
				4						

- 1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point)
- 2) MASP (Prod Casing) = Pore Pressure at TD (.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD =

11.8 ppg)

.22 psi/ft = gradient for partially evac wellbore

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

MASP 4000 psi

#### CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500	Premium cmt + 2% CaCl	215	60%	15.60	1.18
Option 1		7 °	+ .25 pps flocele		.*		
,	TOP OUT CMT (1)	250	20 gals sodium silicate + Premium cmt	100		15.60	1.18
			+ 2% CaCl + .25 pps flocele				
	TOP OUT CMT (2)	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
SURFACE			NOTE: If well will circulate water to surface	e, option	2 will be uti	lized	
Option 2	LEAD	2000	Prem cmt + 16% Gel + 10 pps gilsonite	230	35%	11.00	3.82
			+.25 pps Flocele + 3% salt BWOC				
	TAIL	500	Premium cmt + 2% CaCl	180	35%	15.60	1.18
			+ .25 pps flocele				
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
			· · · · · · · · · · · · · · · · · · ·				
PRODUCTIO	N LEAD	4,430'	Premium Lite II + 3% KCI + 0.25 pps	480	60%	11.00	3.38
			celloflake + 5 pps gilsonite + 10% gel				
			+ 0.5% extender		, .		
	TAIL	5,570'	50/50 Poz/G + 10% salt + 2% gel	1560	60%	14.30	1.31
			+.1% R-3				

<sup>\*</sup>Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

#### **FLOAT EQUIPMENT & CENTRALIZERS**

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe.					
PRODUCTION	Float shoe, 1 jt, float collar. Centralize first 3 joints & every third joint to top of tail cement with bow spring centralizers.					

#### ADDITIONAL INFORMATION

7.00 D11 10 N	AL IN SIMILISM		
	Test casing head to 750 psi	after installing. Test surface casing to 1,500 psi p	rior to drilling out.
	BOPE: 11" 5M with one ann	nular and 2 rams. Test to 5,000 psi (annular to 2,5	00 psi) prior to drilling out. Record on chart recorder &
	tour sheet. Function test ran	ns on each trip. Maintain safety valve & inside BC	P on rig floor at all times. Kelly to be equipped with upper
	& lower kelly valves.		
	Drop Totco surveys every 20	000'. Maximum allowable hole angle is 5 degrees	
	Most rigs have PVT Systems	s for mud monitoring. If no PVT is available, visual	monitoring will be utilized.
DRILLING	ENGINEER:		DATE:
		Brad Laney	······································
DRILLING	SUPERINTENDENT:		DATE:

NBU 921-20IT.xls

Randy Bayne

<sup>\*</sup>Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

## Kerr-McGee Oil & Gas Onshore LP

## NBU #921-20IT SECTION 20, T9S, R21E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 14.0 MILES TO THE JUNCTION OF STATE HIGHWAY 88: TURN LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 17.0 MILES TO OURAY, UTAH; PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 1.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY, THEN SOUTHEASTERLY, THEN NORTHEASTERLY DIRECTION APPROXIMATELY 3.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN RIGHT AND PROCEED IN A SOUTHEASTERLY, THEN EASTERY DIRECTION APPROXIMATELY 1.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN RIGHT AND PROCEED IN A SOUTHEASTERLY DIRECTION APPROXIMATELY 2.4 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTH; TURN RIGHT AND PROCEED IN A SOUTHERLY, THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 1.1 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHWEST; TURN RIGHT AND PROCEED IN A SOUTHWESTERLY DIRECTION APPROXIMATELY 1.0 MILES TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 42.9 MILES.

# Kerr-McGee Oil & Gas Onshore LP

NBU #921-20IT LOCATED IN UINTAH COUNTY, UTAH

SECTION 20, T9S, R21E, S.L.B.&M.

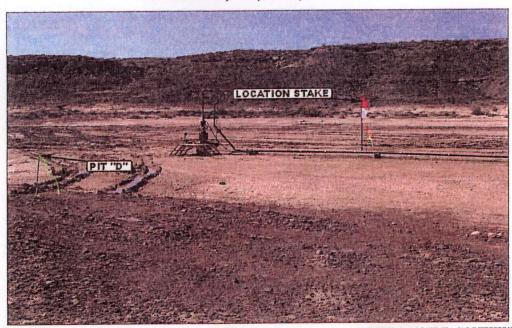


PHOTO: VIEW FROM PIT "D" TO LOCATION STAKE

CAMERA ANGLE: SOUTHWESTERLY

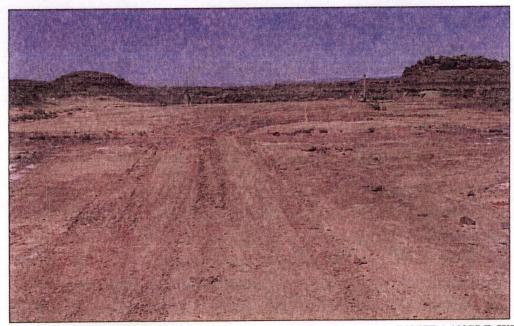


PHOTO: VIEW OF EXISTING ACCESS

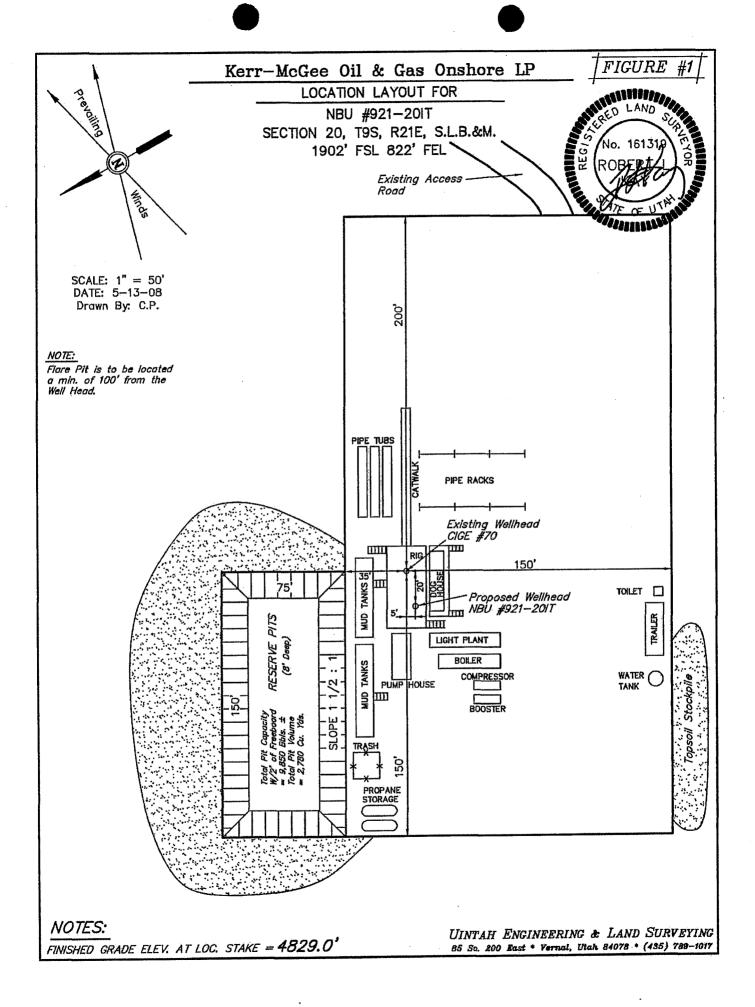
CAMERA ANGLE: WESTERLY

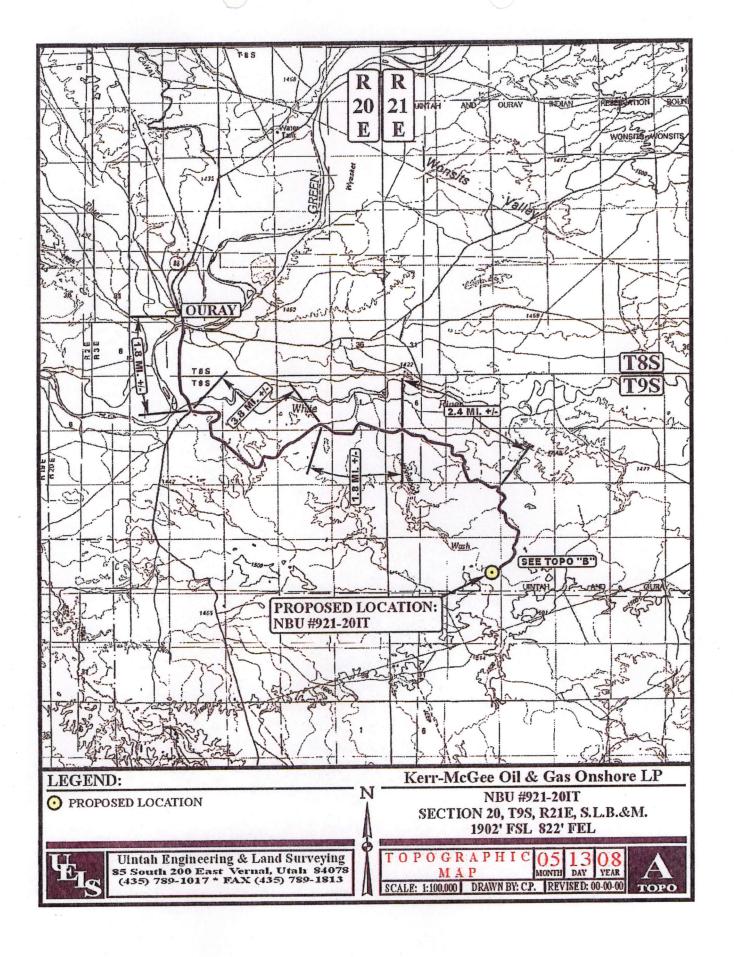


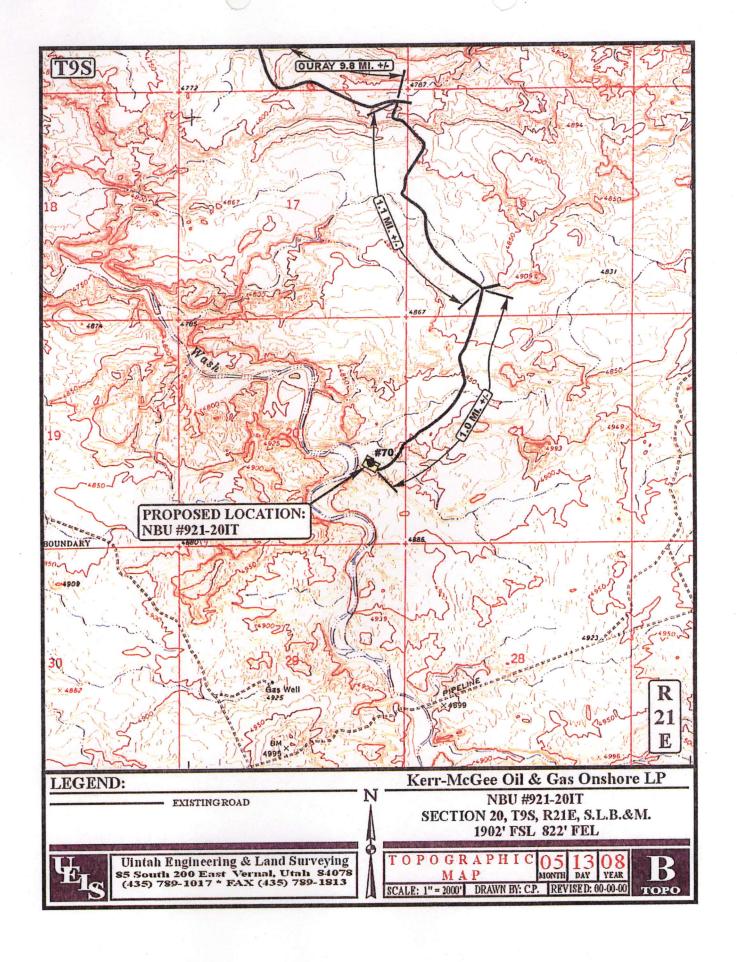
Uintah Engineering & Land Surveying 85 South 200 East Vernal, Utah 84078 435-789-1017 uels@uelsinc.com

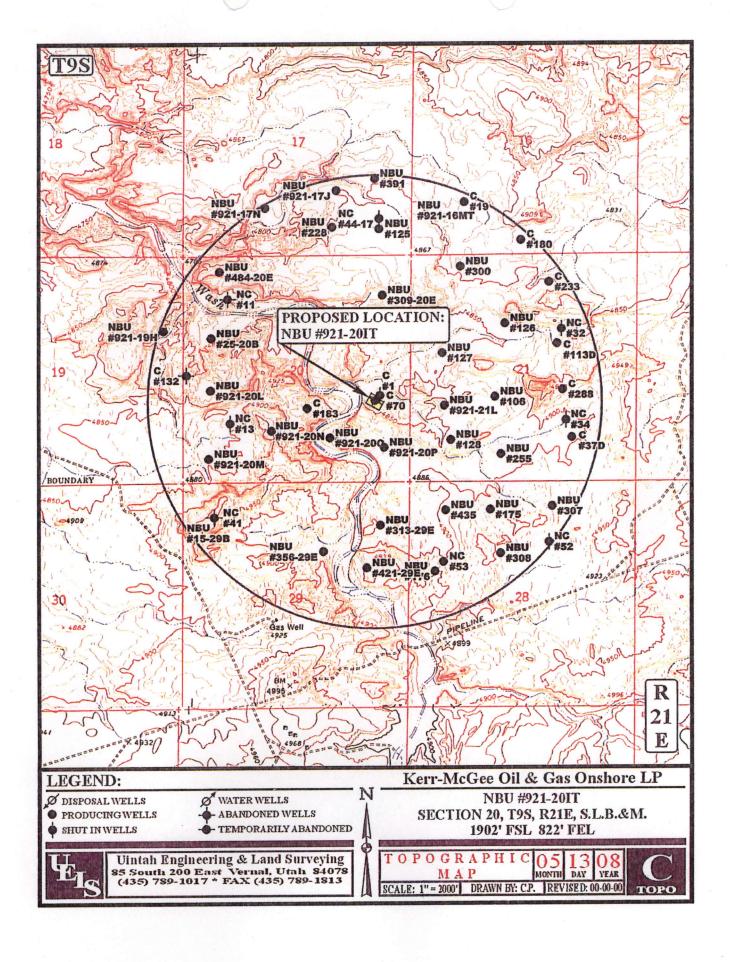
LOCATION PHOTOS

TAKEN BY: D.K. | DRAWN BY: C.P. | REVISED: 00-00-00

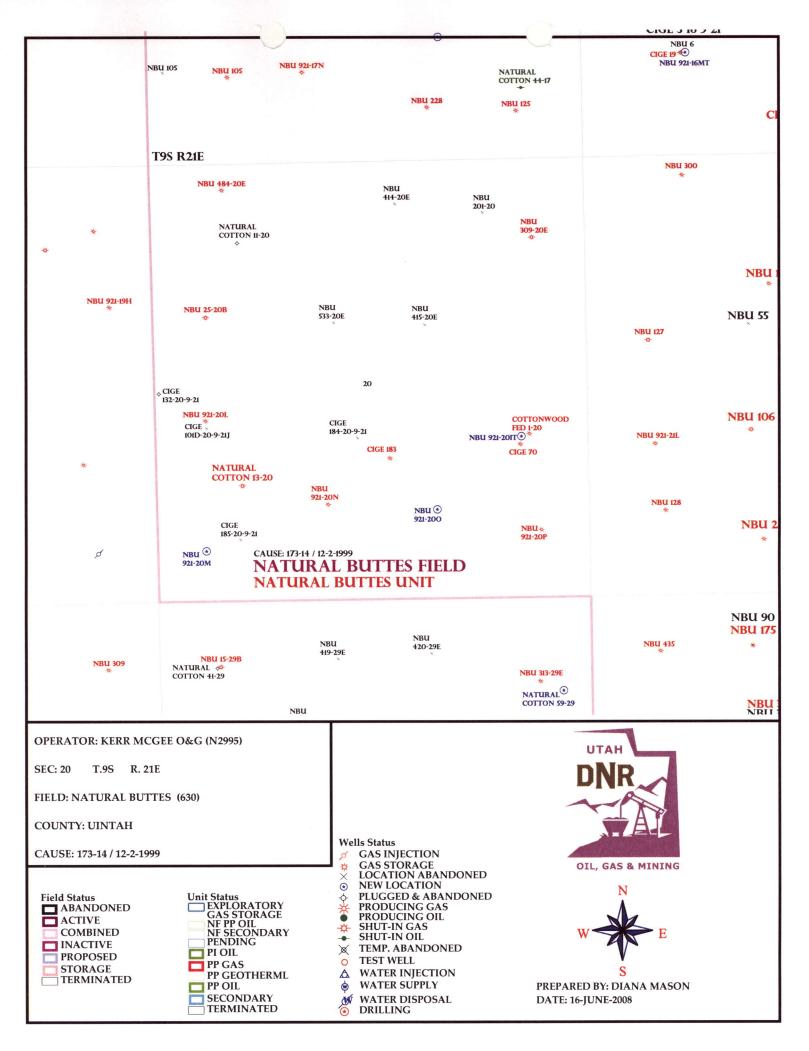








APD RECEIVED: 06/06/2008	API NO. ASSIGNED: 43-047-40136
WELL NAME: NBU 921-20IT  OPERATOR: KERR-MCGEE OIL & GAS ( N2995 )  CONTACT: KEVIN MCINTYRE	PHONE NUMBER: 720-929-6226
PROPOSED LOCATION:	INSPECT LOCATN BY: / /
NESE 20 090S 210E SURFACE: 1902 FSL 0822 FEL	Tech Review Initials Date
BOTTOM: 1902 FSL 0822 FEL	Engineering
COUNTY: UINTAH LATITUDE: 40.01947 LONGITUDE: -109.5684	Geology
UTM SURF EASTINGS: 622173 NORTHINGS: 4430690	Surface
FIELD NAME: NATURAL BUTTES ( 630 )	
LEASE TYPE: 1 - Federal  LEASE NUMBER: UTU-0575  SURFACE OWNER: 2 - Indian	PROPOSED FORMATION: MVRD COALBED METHANE WELL? NO
RECEIVED AND/OR REVIEWED:	LOCATION AND SITING:
Plat	R649-2-3.
Bond: Fed[1] Ind[] Sta[] Fee[] (No. WYW000291 )	Unit: NATURAL BUTTES
M Potash (Y/N)	R649-3-2. General Siting: 460 From Qtr/Qtr & 920' Between Wells
Oil Shale 190-5 (B) or 190-3 or 190-13  Water Permit	R649-3-3. Exception
(No. 43-8496 )  RDCC Review (Y/N)	V Drilling Unit
(Date:)	Board Cause No: 173.14  Eff Date: 12.2-1999
Fee Surf Agreement (Y/N)	Siting: 460'& ubdr & uncomm Track
Intent to Commingle (Y/N)	R649-3-11. Directional Drill
COMMENTS: S.P. Special Si	lo
STIPULATIONS: 1- Content Corp. 2-Ou St	ac
3- THE NBU 921-20 IT SHALL NOT	_
THAT ARE BEING PRODUCED IN THE C	IGE 70 OR THE COMONWOOD PEDERAL 1-20,





June 9, 2008

Utah Division of Oil, Gas & Mining 1594 W. North Temple, STE 1210 Salt Lake City, UT 84114-5801

Attention: Diana Mason

RE: Twin Locations

#### Dear Diana:

Per our email correspondences on June 6, 2008 Kerr-McGee Oil & Gas Onshore LP is submitting this letter regarding our twin program. We have several wells that plan to twin in the next few years. Our plan is to drill a second well bore to the Mesaverde formation The currently producing wells are producing from the Wasatch formation and many will be plugged prior to drilling the Mesaverde well. Below is a current list of locations that we plan to drill a twin Mesaverde well.

√Wissiup 820-36PT	Twin to the Wissiup 36-114	NBU 1022-3FT	Twin to the NBU 286
✓ Federal 821-33MT	Twin to the Federal 33-93	NBU 1022-5BT	Twin to the NBU 140
NBU 920-15FT	Twin to the CIGE 22	NBU 1022-5IT	Twin to the NBU 338
NBU 921-26IT	Twin to the NBU 68-N2	NBU 1022-8IT	Twin to the CIGE 250
NBU 921-30FT	Twin to the NBU 261	NBU 1022-9AT	Twin to the NBU 291
NBU 921-31BT	Twin to the NBU 378	NBU 1022-10HT	Twin to the NBU 293
NBU 921-35AT	Twin to the CIGE 54D	NBU 1022-10FT	Twin to the NBU 248
NBU 922-31CT	Twin to the NBU 354	√NBU 921-03BT	Twin to SHOYO 3-162
√NBU 922-31GT	Twin to the CIGE 220	✓NBU 921-20IT	Twin to CIGE 70
NBU 922-32O1T	Twin to the NBU 404	NBU 921-27MT	Twin to NBU 395
NBU 922-32F3T	Twin to the CIGE 106D	NBU 921-27OT	Twin to NBU 305
NBU 922-35IT	Twin to the CIGE 118	✓NBU 921-15MT	Twin to NBU 191
NBU 922-36NT	Twin to the CIGE 147	NBU 921-27HT	Twin to NBU 109
√ NBU 1022-1CT	Twin to the CIGE 105D	NBU 921-27KT	Twin to NBU 83J
NBU 921-27LT	Twin to NBU 214		RECEIVED
			4



NBU 1022-4N4T	Twin to NBU 148
NBU 922-31L4T	Twin to NBU 41J
NBU 1022-4L1T	Twin to NBU 147
NBU 1022-9F4T	Twin to NBU 150
NBU 1022-4P1T	Twin to NBU 208
NBU 1022-9D1T	Twin to NBU 151
NBU 1022-3G3T	Twin to NBU 185
NBU 1022-10A2T	Twin to NBU 117
NBU 921-11B3T	Twin to NBU 195
NBU 921-21E4T	Twin to NBU 127
NBU 921-8A4T	Twin to NBU 202

The above lists of well locations are planned for the 2008-2009 drilling program. This list may vary depending on the program. Please do not hesitate to call me if you have any further questions or need additional information.

Thank you,

Raleen White

Sr. Regulatory Analyst

Cc: SITLA – Ed Bonner

BLM Vernal Office - Verlyn Pindell

# **United States Department of the Interior**

#### BUREAU OF LAND MANAGEMENT

Utah State Office P.O. Box 45155 Salt Lake City, Utah 84145-0155

IN REPLY REFER TO: 3160 (UT-922)

June 16, 2008

#### Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2008 Plan of Development Natural Buttes Unit

Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2008 within the Natural Buttes Unit, Uintah County, Utah.

## API# WELL NAME LOCATION

(Proposed PZ MesaVerde)

43-047-40136 NBU 921-20IT Sec 20 T09S R21E 1902 FSL 0822 FEL 43-047-40135 NBU 921-15MT Sec 15 T09S R21E 0697 FSL 0406 FWL 43-047-40134 NBU 922-31GT Sec 31 T09S R22E 1664 FNL 1349 FEL 43-047-40133 NBU 922-32CT Sec 32 T09S R22E 0809 FNL 2154 FWL

#### (Proposed PZ Wasatch/MesaVerde)

43-047-40129 NBU 1022-24B1AS Sec 24 T10S R22E 1052 FNL 1583 FEL BHL Sec 24 T10S R22E 0150 FNL 1375 FEL

43-047-40130 NBU 1022-24B1DS Sec 24 T10S R22E 1026 FNL 1637 FEL BHL Sec 24 T10S R22E 0540 FNL 1605 FEL

43-047-40131 NBU 1022-24G1S Sec 24 T10S R22E 1044 FNL 1601 FEL BHL Sec 24 T10S R22E 1515 FNL 1580 FEL

43-047-40141 NBU 1022-24IIS Sec 24 T10S R22E 2062 FSL 1130 FEL

BHL Sec 24 T105 R22E 2002 F5L 1130 FEL BHL Sec 24 T105 R22E 2330 FSL 0585 FEL

43-047-40142 NBU 1022-24G3S Sec 24 T10S R22E 2037 FSL 1184 FEL BHL Sec 24 T10S R22E 2225 FNL 2140 FEL

43-047-40140 NBU 1022-24G2S Sec 24 T10S R22E 2053 FSL 1148 FEL

BHL Sec 24 T10S R22E 1815 FNL 2100 FEL

Our records indicate the 1022-24B1AS, 1022-24B1DS, 1022-24G1S and the 1022-24I1 bottom hole location is closer than 460 feet from the Natural Buttes Unit boundary.

We have no objections to permitting the wells so long as the unit operator receives an exception to the locating and siting requirements of the State of Utah (R649-3-2).

/s/ Michael L. Coulthard

bcc: File - Natural Buttes Unit
 Division of Oil Gas and Mining
 Central Files
 Agr. Sec. Chron
 Fluid Chron

MCoulthard:mc:6-16-08





MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

June 17, 2008

Kerr-McGee Oil & Gas Onshore, LP P O Box 173779 Denver, CO 80217-3779

Re:

NBU 921-20IT Well, 1902' FSL, 822' FEL, NE SE, Sec. 20, T. 9 South, R. 21 East,

Uintah County, Utah

#### Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann.§ 40-6-1 et seq., Utah Administrative Code R649-3-1 et seq., and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-047-40136.

Sincerely,

Gil Hunt

Associate Director

pab Enclosures

cc:

**Uintah County Assessor** 

Bureau of Land Management, Vernal Office



Operator: _		Kerr-McGee Oil & Gas Onshore, LP			
Well Name &	& Number	NBU 9	21-20IT		
API Number	r:	43-047-	-40136		
Lease:		UTU-0	575	Mark to the second seco	
Location: 1	NE SE	Sec. 20	T. 9 South	<b>R.</b> 21 East	

#### **Conditions of Approval**

#### 1. General

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

#### 2. Notification Requirements

Notify the Division within 24 hours of spudding the well.

• Contact Carol Daniels at (801) 538-5284.

Notify the Division prior to commencing operations to plug and abandon the well.

• Contact Dustin Doucet at (801) 538-5281 office (801) 733-0983 home

#### 3. Reporting Requirements

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

- 4. State approval of this well does not supersede the required federal approval, which must be obtained prior to drilling.
- 5. In accordance with Order in Cause No. 190-5(b) dated October 28, 1982, the Operator shall comply with requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operator shall ensure that the surface and/or production casing is properly cemented over the entire oil shale interval as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the Division.
- 6. The NBU 921-20IT shall not be produced from any zones that are being produced in the CIGE 70 or the Cottonwood Federal 1-20.

	STATE OF UTAH		FORM 9		
	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MI		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-0575		
SUNDF	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE		
	sals to drill new wells, significantly deeper igged wells, or to drill horizontal laterals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES		
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 921-20IT		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	9. API NUMBER: 43047401360000				
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th S	9. FIELD and POOL or WILDCAT: NATURAL BUTTES				
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1902 FSL 0822 FEL	COUNTY: UINTAH				
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NESE Section: 20	STATE: UTAH				
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA					
TYPE OF SUBMISSION		TYPE OF ACTION			
Kerr-McGee Oil & Ga extension to this A	□ ACIDIZE □ CHANGE TO PREVIOUS PLANS □ CHANGE WELL STATUS □ DEEPEN □ OPERATOR CHANGE □ PRODUCTION START OR RESUME □ REPERFORATE CURRENT FORMATION □ TUBING REPAIR □ WATER SHUTOFF □ WILDCAT WELL DETERMINATION  OMPLETED OPERATIONS. Clearly show all percent of the maximum time allowith any questions and/or corrections.	e) respectfully requests an owed. Please contact the mments. Thank you.	CASING REPAIR CHANGE WELL NAME CONVERT WELL TYPE NEW CONSTRUCTION PLUG BACK RECOMPLETE DIFFERENT FORMATION TEMPORARY ABANDON WATER DISPOSAL ✓ APD EXTENSION OTHER: Columes, etc.  Approved by the Utah Division of Oil, Gas and Mining  ate: June 10, 2009  y:		
NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBER	R TITLE Regulatory Analyst			
SIGNATURE N/A	720 929-6156	DATE 6/9/2009			



#### The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

**Electronic Permitting System - Sundry Notices** 

#### Request for Permit Extension Validation Well Number 43047401360000

**API:** 43047401360000 Well Name: NBU 921-20IT

Location: 1902 FSL 0822 FEL QTR NESE SEC 20 TWNP 090S RNG 210E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

**Date Original Permit Issued:** 6/17/2008

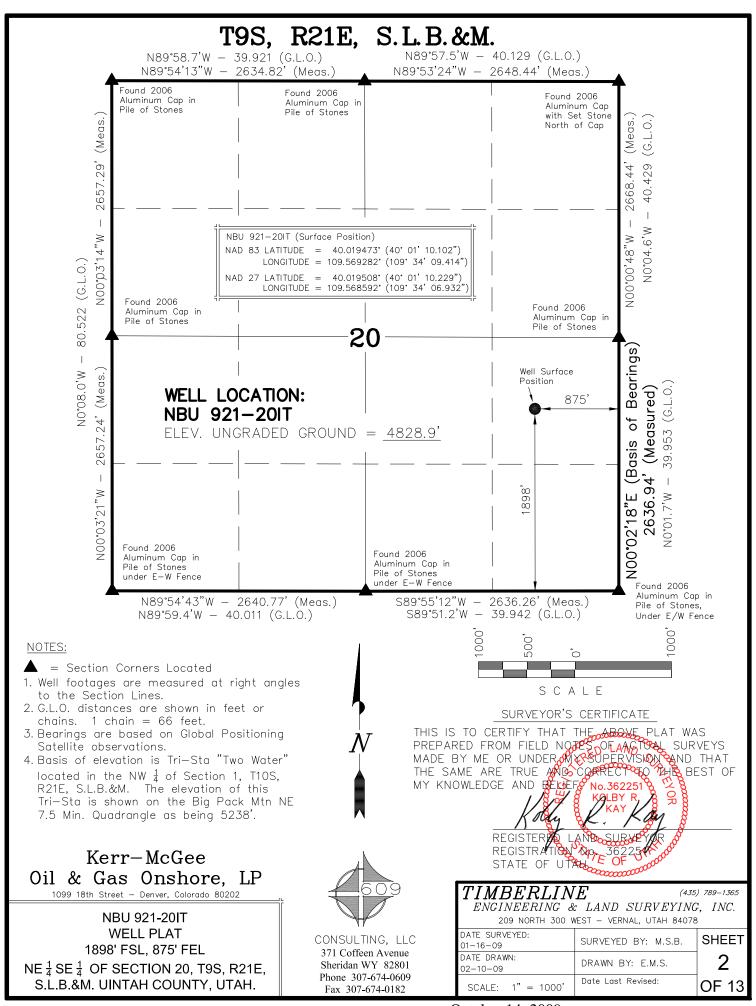
The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that requ

	tion as submitted in t sion. Following is a ch						
	ated on private land, l ed? 📗 Yes 🌘 No	nas the own	ership changed, i	f so, has the s	urface agr	eement been	
	any wells been drilled requirements for this			ed well which	would affe	ect the spacing or	
	nere been any unit or s proposed well?			e that could a	ffect the p	ermitting or oper	atio
	there been any chang the proposed locatio			ing ownership	, or righto	f- way, which cou	blı
• Has ti	ne approved source of	f water for d	Irilling changed?	Yes 📵	No		
	there been any physic je in plans from what					-	1
• Is bor	nding still in place, wh	nich covers t	this proposed wel	l? 📵 Yes 🕕	No Uta	proved by the ah Division of Gas and Mining	j
nature:	Danielle Piernot	Date:	6/9/2009				
Title:	Regulatory Analyst Re	presenting:	KERR-MCGEE OIL	& GAS ONSHOR	<u> </u>	June 10, 2009	
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By: Dodg

			FORM 9		
	STATE OF UTAH		I OKM 9		
	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	3	<b>5.LEASE DESIGNATION AND SERIAL NUMBER:</b> UTU-0575		
	RY NOTICES AND REPORTS ON		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE		
Do not use this form for proposition-hole depth, reenter plu DRILL form for such proposals.	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES				
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 921-20IT				
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		<b>9. API NUMBER:</b> 43047401360000		
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th S	reet, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6007 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1902 FSL 0822 FEL			COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSHI	<b>P, RANGE, MERIDIAN:</b> Township: 09.0S Range: 21.0E Meridian: S		STATE: UTAH		
11. CHE	CK APPROPRIATE BOXES TO INDICATE N	ATURE OF NOTICE, REPORT,	OR OTHER DATA		
TYPE OF SUBMISSION		TYPE OF ACTION			
	ACIDIZE	ALTER CASING	CASING REPAIR		
NOTICE OF INTENT Approximate date work will start:	✓ CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME		
10/18/2009	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE		
SUBSEQUENT REPORT	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION		
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK		
	☐ PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION		
SPUD REPORT Date of Spud:	☐ REPERFORATE CURRENT FORMATION ☐ :	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON		
	☐ TUBING REPAIR ☐	VENT OR FLARE	WATER DISPOSAL		
DRILLING REPORT	☐ WATER SHUTOFF ☐ :	SI TA STATUS EXTENSION	APD EXTENSION		
Report Date:	☐ WILDCAT WELL DETERMINATION ☐	OTHER	OTHER:		
Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests a minor adjustment of the surface location for this well due to additional wells being added to the pad. The surface location is changing FROM: 1,902′ FSL 875′ FEL. Please see the attached revised survey plat for additional information. All of the other original information remains the same. Please contact the undersigned with any questions and/or comments are:  October 15, 2009  Thank you.  By:					
NAME (PLEASE PRINT) Danielle Piernot	<b>PHONE NUMBER</b> 720 929-6156	TITLE Regulatory Analyst			
SIGNATURE N/A		<b>DATE</b> 10/14/2009			



	STATE OF UTAH		FORM 9		
	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MI		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-0575		
SUNDF	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE		
bottom-hole depth, reenter plu	Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.				
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 921-20IT		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSI	9. API NUMBER: 43047401360000				
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th S	9. FIELD and POOL or WILDCAT: NATURAL BUTTES				
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1898 FSL 0875 FEL	COUNTY: UINTAH				
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NESE Section: 20	STATE: UTAH				
11. CHE	CK APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REPORT,	OR OTHER DATA		
TYPE OF SUBMISSION		TYPE OF ACTION			
Kerr-McGee Oil & Ga extension to this A	☐ ACIDIZE ☐ CHANGE TO PREVIOUS PLANS ☐ CHANGE WELL STATUS ☐ DEEPEN ☐ OPERATOR CHANGE ☐ PRODUCTION START OR RESUME ☐ REPERFORATE CURRENT FORMATION ☐ TUBING REPAIR ☐ WATER SHUTOFF ☐ WILDCAT WELL DETERMINATION  MPLETED OPERATIONS. Clearly show all per allows on the maximum time allowith any questions and/or continuous or the continuous of the continuous	e) respectfully requests an owed. Please contact the mments. Thank you.	CASING REPAIR  CHANGE WELL NAME  CONVERT WELL TYPE  NEW CONSTRUCTION  PLUG BACK  RECOMPLETE DIFFERENT FORMATION  TEMPORARY ABANDON  WATER DISPOSAL  ✓ APD EXTENSION  OTHER:  Folumes, etc.  Approved by the  Utah Division of  Oil, Gas and Mining  ate: June 23, 2010  y:		
NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBER	R TITLE Regulatory Analyst			
SIGNATURE N/A	720 929-6156	DATE 6/17/2010			



#### The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

**Electronic Permitting System - Sundry Notices** 

#### Request for Permit Extension Validation Well Number 43047401360000

**API:** 43047401360000 Well Name: NBU 921-20IT

Location: 1898 FSL 0875 FEL QTR NESE SEC 20 TWNP 090S RNG 210E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

**Date Original Permit Issued:** 6/17/2008

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that requ

	tion as submitted in t sion. Following is a cl							
	ated on private land, ed? 🦳 Yes 🌘 No		ership change	d, if so, has	the surfa	ice agree	ement been	
	any wells been drilled requirements for this				which wou	ıld affect	the spacing	or
	nere been any unit or s proposed well?			place that c	ould affec	t the per	mitting or op	eratio
	there been any chang the proposed locatio			luding own	ership, or	rightof-	way, which c	ould
• Has ti	ne approved source o	f water for d	rilling change	d? 📵 Yes	® No			
	there been any physi je in plans from what						ch will require No	e a
• Is bor	nding still in place, wl	nich covers t	his proposed	well? 🌘 🗅	Yes 🜘 l	No Utah	oved by the Division of as and Mini	f
	Danielle Piernot		6/17/2010					
Title:	Regulatory Analyst Re	presenting:	KERR-MCGEE	OIL & GAS O	NSHOR <b>₽</b> , <b>at</b>	<b>.e:</b> <u>Jυ</u>	ine 23, 2010	
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By: Dodg

	STATE OF UTAH		FORM 9		
	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MI		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-0575		
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QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NESE Section: 20	STATE: UTAH				
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NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBER	R TITLE Regulatory Analyst			
SIGNATURE N/A	720 929-6156	DATE 6/17/2010			



#### The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

**Electronic Permitting System - Sundry Notices** 

#### Request for Permit Extension Validation Well Number 43047401360000

**API:** 43047401360000 Well Name: NBU 921-20IT

Location: 1898 FSL 0875 FEL QTR NESE SEC 20 TWNP 090S RNG 210E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

**Date Original Permit Issued:** 6/17/2008

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that requ

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	ated on private land, ed? 🦳 Yes 🌘 No		ership change	d, if so, has	the surfa	ice agree	ement been	
	any wells been drilled requirements for this				which wou	ıld affect	the spacing	or
	nere been any unit or s proposed well?			place that c	ould affec	t the per	mitting or op	eratio
	there been any chang the proposed locatio			luding own	ership, or	rightof-	way, which c	ould
• Has ti	ne approved source o	f water for d	rilling change	d? 📵 Yes	® No			
	there been any physi je in plans from what						ch will require No	e a
• Is bor	nding still in place, wl	nich covers t	his proposed	well? 🌘 🗅	Yes 🜘 l	No Utah	oved by the Division of as and Mini	f
	Danielle Piernot		6/17/2010					
Title:	Regulatory Analyst Re	presenting:	KERR-MCGEE	OIL & GAS O	NSHOR <b>₽</b> , <b>at</b>	<b>.e:</b> <u>Jυ</u>	ine 23, 2010	
		-			•	m d	Oll Ros	

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By: Dodg

Sundry Number: 15099 API Well Number: 43047401360000

	STATE OF UTAH		FORM 9		
	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	G	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-0575		
SUNDF	RY NOTICES AND REPORTS ON	N WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE		
Do not use this form for proposition-hole depth, reenter plu DRILL form for such proposals.	sals to drill new wells, significantly deepen exis agged wells, or to drill horizontal laterals. Use A	ting wells below current APPLICATION FOR PERMIT TO	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES		
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2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	<b>9. API NUMBER:</b> 43047401360000				
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th S	9. FIELD and POOL or WILDCAT: NATURAL BUTTES				
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1898 FSL 0875 FEL	COUNTY: UINTAH				
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NESE Section: 20	STATE: UTAH				
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA					
TYPE OF SUBMISSION		TYPE OF ACTION			
Kerr-McGee Oil & G extension to this A	CHANGE TO PREVIOUS PLANS  CHANGE WELL STATUS  DEEPEN  OPERATOR CHANGE  PRODUCTION START OR RESUME  REPERFORATE CURRENT FORMATION  TUBING REPAIR  WATER SHUTOFF	espectfully requests ared. Please contact the ents. Thank you.	NEW CONSTRUCTION   PLUG BACK   RECOMPLETE DIFFERENT FORMATION   TEMPORARY ABANDON   WATER DISPOSAL   ✓ APD EXTENSION   OTHER:		
NAME (DI FACE DOTAT)	BUONE NUMBER	TTT   F			
NAME (PLEASE PRINT) Andy Lytle	<b>PHONE NUMBER</b> 720 929-6100	TITLE Regulatory Analyst			
SIGNATURE N/A		<b>DATE</b> 5/13/2011			

Sundry Number: 15099 API Well Number: 43047401360000



#### The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

**Electronic Permitting System - Sundry Notices** 

#### Request for Permit Extension Validation Well Number 43047401360000

**API:** 43047401360000 **Well Name:** NBU 921-20IT

Location: 1898 FSL 0875 FEL QTR NESE SEC 20 TWNP 090S RNG 210E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

**Date Original Permit Issued:** 6/17/2008

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

• If located on private land, has the ownership changed, if so, has the surface agreement been updated? Yes No
<ul> <li>Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?</li> <li>Yes</li> <li>No</li> </ul>
<ul> <li>Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?</li> <li>Yes</li> <li>No</li> </ul>
<ul> <li>Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?</li> <li>Yes</li> <li>No</li> </ul>
• Has the approved source of water for drilling changed? 🔵 Yes 🌘 No
<ul> <li>Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?</li> <li>Yes</li> <li>No</li> </ul>
• Is bonding still in place, which covers this proposed well? 🌘 Yes 🔘 No
Signature: Andy Lytle Date: 5/13/2011

Title: Regulatory Analyst Representing: KERR-MCGEE OIL & GAS ONSHORE, L.P.

#### UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB No. 1004-0137 Expires July 31, 2010

#### 5. Lease Serial No. UTU-0575

6. If Indian, Allotee or Tribe Name

APPLICATION FOR PERMIT TO DRILL OR REENTER				Ute		
la. Type of work:  DRILL  REENTER				7. If Unit or CA Agn 891008900A	eement, Name and No.	
lb. Type of Well: Oil Well Gas Well Other	□s	ingle Zone 🚺 Multi	ple Zone	8. Lease Name and Well No. NBU 921-20IT		
2. Name of Operator				9. API Well No.		
Kerr-McGee Oil & Gas Onshore, LP	2L DL N	o ( 1 1 1)		43-047-		
P.O. Box 173779, Denver, CO 80217-3779	720.929.6	0. (include area code) 226		10. Field and Pool, or Natural Buttes Fiel	• •	
<ol> <li>Location of Well (Report location clearly and in accordance with At surface NESE 1902' FSL &amp; 822' FEL LAT 40.019</li> </ol>		•		11. Sec., T. R. M. or E Sec. 20, T 9S, R 2	Blk. and Survey or Area	
At proposed prod. zone N/A						
<ol> <li>Distance in miles and direction from nearest town or post office*</li> <li>9 miles south of Ouray, Utah</li> </ol>	,			12. County or Parish Uintah	13. State	
15. Distance from proposed* 822' location to nearest	16. No. of a	acres in lease	17. Spacir	ng Unit dedicated to this	well	
property or lease line, ft. (Also to nearest drig. unit line, if any)	1600		Unit We	H		
18. Distance from proposed location* 1500'	19. Propose	d Depth	20. BLM/	BLM/BIA Bond No. on file		
to nearest well, drilling, completed, applied for, on this lease, ft.	10,000'		WYB000291			
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approxi	mate date work will sta	rt*	23. Estimated duration	n	
4829' GL				10 days		
	24. Atta					
The following, completed in accordance with the requirements of Onsh	ore Oil and Gas	Order No.1, must be at	tached to th	is form:		
Well plat certified by a registered surveyor.     A Drilling Plan.		4. Bond to cover the Item 20 above).	ne operatio	ns unless covered by an	existing bond on file (see	
3. A Surface Use Plan (if the location is on National Forest System	n Lands, the	5. Operator certific				
SUPO must be filed with the appropriate Forest Service Office).		6. Such other site:	specific info	ormation and/or plans as	may be required by the	
25. Signature	Name	(Printed Typed)			Date	
ki me	Kevin	McIntyre			06/05/2008	
Title Regulatory Analyst						
Approved by (Signature)	Name	(Printed Typed) Jerry K	(encz	ka	Date APR 2 6 201	
Title Ssistant Field Manager Lands & Mineral Resources	Office	VERNA	L FIEL	D OFFICE		
Application approval does not warrant or certify that the applicant hole conduct operations thereon. Conditions of approval, if any, are attached.	ds legal or equi	table title to those right	s in the sub	ject lease which would e	ntitle the applicant to	
Fitle 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a catalogue of tales, fictitious or fraudulent statements or representations as	crime for any pe to any matter w	erson knowingly and w	rillfully to m	ake to any department o	r agency of the United	
(Continued on page 2)				*(Instr	ructions on page 2)	

No NOS Postel 6-11-08
RECEIVED MAY 16 2011 MAY 16 2011

DIV. OF OIL, GAS & MINING

**NOTICE OF APPROVAL CONDITIONS OF APPROVAL ATTACHED** 



#### UNITED STATES DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT VERNAL FIELD OFFICE** 170 South 500 East

**VERNAL, UT 84078** 

(435) 781-4400



#### CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company: Well No: API No:

Kerr McGee Oil & Gas Onshore LP

**NBU 920-20IT** 43-047-40136

Location:

Lease No: Agreement: **SESE, Sec.20, T9S R21E** 

UTU-0575 **Natural Buttes** 

OFFICE NUMBER:

(435) 781-4400

**OFFICE FAX NUMBER:** 

(435) 781-3420

#### A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.

#### **NOTIFICATION REQUIREMENTS**

Location Construction (Notify Environmental Scientist)	<ul> <li>Forty-Eight (48) hours prior to construction of location and access roads.</li> </ul>
Location Completion (Notify Environmental Scientist)	- Prior to moving on the drilling rig.
Spud Notice (Notify Petroleum Engineer)	- Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify Supv. Petroleum Tech.)	- Twenty-Four (24) hours prior to running casing and cementing all casing strings to: ut vn opreport@blm.gov.
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	- Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)	- Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

Page 2 of 8 Well: NBU 921-20IT 4/21/2011

# SURFACE USE PROGRAM CONDITIONS OF APPROVAL (COAs)

- All new and replacement internal combustion gas field engines of less than or equal to 300 designrated horsepower must not emit more than 2 gms of NO<sub>x</sub> per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.
- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO<sub>x</sub> per horsepower-hour.
- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.
- If paleontological materials are uncovered during construction, the operator is to immediately stop
  work and contact the Authorized Officer (AO). A determination will be made by the AO as to what
  mitigation may be necessary for the discovered paleontologic material before construction can
  continue.

#### SITE SPECIFIC CONDITIONS OF APPROVAL

- Paint New facilities "shadow gray."
- Monitor by a permitted paleontologist during the construction process.
- Monitor location by a permitted archaeologist during the construction process.
- In accordance with the guidelines specified in the Utah BLM Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances, 2002 (See Appendix D), a raptor survey should be conducted prior to construction of the proposed location, pipeline, or access road if construction would take place during raptor nesting season (January 01 through September 30) and conduct its operations according to specification in the guidelines.
- If project construction operations are scheduled to occur after June 8, 2010, KMG will conduct
  additional biological surveys in accordance with the guidelines specified in the USFWS Rare Plant
  Conservation Measures for Uinta Basin hookless cactus (See Appendix D) and conduct its
  operation according to its specifications.

#### **BIA Standard Conditions of Approval:**

- Soil erosion will be mitigated by reseeding all disturbed areas.
- The gathering pipelines will be constructed to lie on the surface. The surface pipelines will not be bladed or cleared of vegetation. Where pipelines are constructed parallel to roads they may be welded on the road and then lifted from the road onto the right-of-way. Where pipelines do not parallel roads but cross-country between sites, they shall be welded in place at well sites or on access roads and then pulled between stations with a suitable piece of equipment. Traffic will be restricted along these areas so that the pipeline right-of-way will not be used as an access road.
- An open drilling system shall be used, unless otherwise specified in 10.0 Additional Stipulations of this document and in the Application for Permit to Drill. A closed drilling system shall be used in all

Page 3 of 8 Well: NBU 921-20IT 4/21/2011

flood plain areas, and other highly sensitive areas, recommended by the Ute Tribe Technician, BIA, and other agencies involved.

- The reserve pit shall be lined with a synthetic leak proof liner. After the drilling operation is complete, excess fluids shall be removed from the reserve pit and either hauled to an approved disposal site or shall be used to drill other wells. When the fluids are removed the pit shall be backfilled a minimum of 3.0' below the soil surface elevation.
- A closed production system shall be used. This means all produced water and oil field fluid wastes shall be contained in leak proof tanks. These fluids shall be disposed of in either approved injection wells or disposal pits.
- Major low water crossings will be armored with pit run material to protect them from erosion.
- All personnel should refrain from collecting any paleontological fossils and from disturbing any fossil resources in the area.
- If fossils are exposed or identified during construction, all construction must cease and immediate notification to the Energy and Minerals Department and the Cultural Rights Protection Officer.
- Before the site is abandoned the company will be required to restore the right-of-way to near its
  original state. The disturbed area will be reseeded with desirable perennial vegetation. If
  necessary, the Bureau of Indian Affairs or Bureau of Land Management will provide a suitable seed
  mixture.
- Noxious weeds will be controlled on all surface disturbances within the project area. If noxious
  weeds spread from the project area onto adjoining land, the company will also be responsible for
  their control.
- If project construction operations are scheduled to occur after December 31, 2009, KMG should conduct annual raptor surveys in accordance with the guidelines specified in the Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances, 2002 (See Appendix E) and conduct its operations according to applicable seasonal restrictions and spatial offsets.
- USFWS threatened and endangered plant and animal conservation measures will be followed, as appropriate to the species identified by the biological resource survey (See Appendix E).
- All personnel should refrain from collecting artifacts and from disturbing any significant cultural resources in the area.
- If artifacts or any culturally sensitive materials are exposed or identified during construction, all
  construction must cease and immediate notification to the Energy and Minerals Department and the
  Cultural Rights Protection Officer.

Page 4 of 8 Well: NBU 921-20IT 4/21/2011

# DOWNHOLE PROGRAM CONDITIONS OF APPROVAL (COAs)

#### SITE SPECIFIC DOWNHOLE COAs:

 Kerr McGee and their contractors shall strictly adhere to all operating practices in the SOP along with all Oil and Gas rules and requirements listed in the Code of Federal Regulations and all Federal Onshore Oil and Gas Orders except where variances have been granted.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

# DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily
  drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order
  No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a
  test pump with a chart recorder and <u>NOT</u> by the rig pumps. Test shall be reported in the driller's
  log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- Cement baskets shall not be run on surface casing.
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.

Page 5 of 8 Well: NBU 921-20IT 4/21/2011

- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM,
   Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- Please submit an electronic copy of all other logs run on this well in LAS format to UT\_VN\_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

Page 6 of 8 Well: NBU 921-20IT 4/21/2011

#### **OPERATING REQUIREMENT REMINDERS:**

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at www.ONRR.gov.
- In accordance with 43 CFR 3162.4-3, this well shall be reported on the "Monthly Report of Operations" (Oil and Gas Operations Report ((OGOR)) starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report shall be filed in duplicate, directly with the Minerals Management Service, P.O. Box 17110, Denver, Colorado 80217-0110, or call 1-800-525-7922 (303) 231-3650 for reporting information.
- Should the well be successfully completed for production, the BLM Vernal Field office must be
  notified when it is placed in a producing status. Such notification will be by written communication
  and must be received in this office by not later than the fifth business day following the date on
  which the well is placed on production. The notification shall provide, as a minimum, the following
  informational items:
  - Operator name, address, and telephone number.
  - Well name and number.
  - Well location (¼¼, Sec., Twn, Rng, and P.M.).
  - Date well was placed in a producing status (date of first production for which royalty will be paid).
  - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
  - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
  - o Unit agreement and/or participating area name and number, if applicable.
  - o Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of

Page 7 of 8 Well: NBU 921-20IT 4/21/2011

the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering
  lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a
  suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be
  obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover
  equipment shall be removed from a well to be placed in a suspended status without prior approval
  of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior
  approval of the BLM Vernal Field Office shall be obtained and notification given before resumption
  of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in

Page 8 of 8 Well: NBU 921-20IT 4/21/2011

hole, and the current status of the surface restoration.

# BLM - Vernal Field Office - Notification Form

Operator KERN	R-McGEE OIL & GA	<u>AS</u> Rig Name	e/# <u>BUCI</u>	KET RIG					
Submitted By SHEILA WOPSOCY Phone Number 435.781.7024									
Well Name/Number <u>ทิยบ 921-20 T</u>									
Qtr/Qtr NE/SE Section 20 Township 9S Range 21E									
Lease Serial Nu	ımber <u>UTU-0575</u>								
API Number 43	04740136								
Spud Notice – Sout below a case	Spud is the initia sing string.	l spudding c	of the we	ll, not drillin					
Date/Time	e <u>07/01/2011</u>	1200 HRS	AM 🗸	РМ					
<u>Casing</u> – Please times.	e report time cas	ing run star	ts, not ce	ementing					
✓ Surface Ca	asing		RF	CEIVED					
•	ate Casing			N 3 0 2011					
Production	n Casing								
Liner			DIV. OF C	OIL, GAS & MINING					
Other									
Date/Time	e <u>07/15/2011</u>	0800 HRS	AM 🗸	РМ					
	PE test at surface at intermediate OPE test								
Date/Time	e		AM 🗌	РМ					
Remarks ESTIN	MATED DATE AND <del>Y GATHINGS AT </del>	TIME. PLEA <del>135.781.7048</del>	SE CONT	ΓACT DRE ■					

Sundry Number: 16493 API Well Number: 43047401360000

	STATE OF UTAH		FORM 9		
	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MIN		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-0575		
	RY NOTICES AND REPORTS		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE		
	sals to drill new wells, significantly deepen or gged wells, or to drill horizontal laterals. Us		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES		
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 921-20IT		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43047401360000		
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th S	PHON treet, Suite 600, Denver, CO, 80217 3779	<b>IE NUMBER:</b> 720 929-6515 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1898 FSL 0875 FEL			COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NESE Section: 20	STATE: UTAH				
11. CHE	CK APPROPRIATE BOXES TO INDICAT	E NATURE OF NOTICE, REPORT,	OR OTHER DATA		
TYPE OF SUBMISSION					
MIRU PETE MARTIN	CHANGE TO PREVIOUS PLANS CHANGE WELL STATUS DEEPEN OPERATOR CHANGE PRODUCTION START OR RESUME REPERFORATE CURRENT FORMATION TUBING REPAIR WATER SHUTOFF WILDCAT WELL DETERMINATION MPLETED OPERATIONS. Clearly show all pert BUCKET RIG. DRILLED 20" CC DULE 10 PIPE. CMT W/28 SX F 07/01/2011 AT 0900 HRS	ONDUCTOR HOLE TO 40'. READY MIX. SPUD WELL O S.  Oil	· ·		
NAME (PLEASE PRINT) Sheila Wopsock	PHONE NUMBER 435 781-7024	TITLE Regulatory Analyst			
SIGNATURE N/A		DATE 7/7/2011			

Sundry Number: 16792 API Well Number: 43047401360000

	STATE OF UTAH		FORM 9			
	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MIN		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-0575			
	RY NOTICES AND REPORTS		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE			
	sals to drill new wells, significantly deepen ggged wells, or to drill horizontal laterals. U:		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES			
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 921-20IT			
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43047401360000			
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th S	PHON treet, Suite 600, Denver, CO, 80217 3779	<b>IE NUMBER:</b> 720 929-6515 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES			
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1898 FSL 0875 FEL	COUNTY: UINTAH					
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NESE Section: 20	STATE: UTAH					
11. CHE	CK APPROPRIATE BOXES TO INDICAT	E NATURE OF NOTICE, REPORT,	OR OTHER DATA			
TYPE OF SUBMISSION						
	☐ ACIDIZE	☐ ALTER CASING	CASING REPAIR			
NOTICE OF INTENT Approximate date work will start:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	CHANGE WELL NAME			
Approximate date work will start:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE			
SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION			
	OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK			
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION			
Date of Spud:	☐ REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON			
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL			
✓ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	APD EXTENSION			
7/15/2011	☐ WILDCAT WELL DETERMINATION	OTHER	OTHER:			
MIRU AIR RIG ON J SURFACE CASING	MPLETED OPERATIONS. Clearly show all pert ULY 13, 2011. DRILLED SURFA AND CEMENTED. WELL IS WA ENT JOB WILL BE INCLUDED W REPORT.	ACE HOLE TO 2720'. RAN ITING ON ROTARY RIG. ITH WELL COMPLETION A U				
NAME (PLEASE PRINT) Andy Lytle	<b>PHONE NUMBER</b> 720 929-6100	TITLE Regulatory Analyst				
SIGNATURE N/A		DATE 7/18/2011				

#### STATE OF UTAH **DEPARTMENT OF NATURAL RESOURCES** DIVISION OF OIL, GAS AND MINING

#### **ENTITY ACTION FORM**

Operator:

KERR McGEE OIL & GAS ONSHORE LP

Operator Account Number: N 2995

Address:

1368 SOUTH 1200 EAST

city VERNAL

state UT

zip 84078

Phone Number: (435) 781-7024

Well 1

			QQ Sec Twp			Rng County			
4304750599	NBU 921-2014CS		NESE	20	98	21E	UINTAH		
Action Code	Current Entity Number	New Entity Number	s	Spud Date			Entity Assignment Effective Date		
В	99999	3910		7/1/2011			20/11		

Well 2

21-20IT ent Entity		NESE	20	98	21F	LIINTAH	
ent Entity				1	21E UINTAH		
umber	New Entity Number	S	Spud Date			Entity Assignment Effective Date	
99999	3900		7/1/2011			120/11	
	99999 ARTIN BUCKE	99999 3900	99999 3900 ARTIN BUCKET RIG. M V RD= W S7	99999 3900 7/1/2017 ARTIN BUCKET RIG. TO VRD= WSTO VI	99999 3900 7/1/2011 ARTIN BUCKET RIG. M V RD= W S M V B	99999 3900 7/1/2011 7 ARTIN BUCKET RIG. TO VED= WSTOVS	

Well 3

-20P1BS	New Entity	NESE	20	98	21E	UINTAH		
- 1	New Entity	1			<del> </del>			
nber	Number	S	Spud Date			Entity Assignment Effective Date		
999	2900		7/2/201	l	7/	20/11		
	9999 RTIN BUCKE	999 2900	RTIN BUCKET RIG. WS771YD	999 3900 71212011 RTIN BUCKET RIG. WS77YD	999 3900 7/2/2011 RTIN BUCKET RIG. WS7NYD	1999 3900 7/2/2011 7/		

#### **ACTION CODES:**

- A Establish new entity for new well (single well only)
- B Add new well to existing entity (group or unit well)
- C Re-assign well from one existing entity to another existing entity
- D Re-assign well from one existing entity to a new entity
- E Other (Explain in 'comments' section)

SHEILA WOPSOCK

Name (Please Print)

Signature

**REGULATORY ANALYST** 

7/7/2011 Date

(5/2000)

**RECEIVED** 

JUL 07 2011

DIV. OF OIL, GAS & MINING

Sundry Number: 18458 API Well Number: 43047401360000

	STATE OF UTAH		FORM 9							
	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MININ	IG	<b>5.LEASE DESIGNATION AND SERIAL NUMBER:</b> UTU-0575							
SUNDF	RY NOTICES AND REPORTS O	N WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE							
	sals to drill new wells, significantly deepen exi gged wells, or to drill horizontal laterals. Use		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES							
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 921-20IT							
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43047401360000							
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th S	PHONE treet, Suite 600, Denver, CO, 80217 3779	NUMBER: 720 929-6515 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES							
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1898 FSL 0875 FEL			COUNTY: UINTAH							
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NESE Section: 20	P, RANGE, MERIDIAN: Township: 09.0S Range: 21.0E Meridian: S		STATE: UTAH							
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA										
TYPE OF SUBMISSION TYPE OF ACTION										
	☐ ACIDIZE ☐	ALTER CASING	☐ CASING REPAIR							
□ NOTICE OF INTENT	☐ CHANGE TO PREVIOUS PLANS	CHANGE TUBING	☐ CHANGE WELL NAME							
Approximate date work will start:	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE							
SUBSEQUENT REPORT	DEEPEN	FRACTURE TREAT	□ NEW CONSTRUCTION							
Date of Work Completion:										
	☐ OPERATOR CHANGE	PLUG AND ABANDON	☐ PLUG BACK							
SPUD REPORT Date of Spud:	☐ PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION							
Jule of Spaul	☐ REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON							
✓ DRILLING REPORT	L TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL							
Report Date:	□ WATER SHUTOFF □	SI TA STATUS EXTENSION	APD EXTENSION							
9/13/2011	☐ WILDCAT WELL DETERMINATION ☐	OTHER	OTHER:							
MIRU ROTARY RIG. F 2011. RAN 4-1/2": 11.6# P110 CSG FRO RELEASED H&P R CEMENT JOB WILL	MPLETED OPERATIONS. Clearly show all pertine INISHED DRILLING FROM 2720' 11.6# I-80 PRODUCTION CASIN DM 9480' TO 10,180'. CEMENTEI IG 298 ON SEPT 13, 2011 @ 18 BE INCLUDED WITH THE WELL WAITING ON FINAL COMPLETIO	TO 10,195' ON SEPT 12 G TO 9480'. RAN 4 ½" D PRODUCTION CASING :00 HRS. DETAILS OF COMPLETION REPOR <b>DI</b>	, ccepted by the Jtah Division of							
NAME (PLEASE PRINT) Andy Lytle	<b>PHONE NUMBER</b> 720 929-6100	TITLE Regulatory Analyst								
SIGNATURE N/A		<b>DATE</b> 9/14/2011								

# Carol Daniels - PRODUCTION CASING MBU 921-20IT Togs Rais 5-20 43-049-40136

From:

"Anadarko - H&P 298"

To:

Date:

9/11/2011 8:13 PM

Subject: PRODUCTION CASING MBU 921-20IT

PRODUCTION CASING WILL BE RUN ON NBU 921-20IT MONDAY 9/12/2011 8-10 PM

JIM MURRAY H&P 298 435 828-0957

RECEIVED SEP 1 3 2011

DIV. OF OIL, GAS & MINING

Sundry Number: 20360 API Well Number: 43047401360000

			FORM 9				
	STATE OF UTAH						
	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MININ	NG	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-0575				
	RY NOTICES AND REPORTS O		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE				
	sals to drill new wells, significantly deepen ex ıgged wells, or to drill horizontal laterals. Use		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES				
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 921-20IT				
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43047401360000				
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th S	<b>PHONE</b> treet, Suite 600, Denver, CO, 80217 3779	NUMBER: 720 929-6515 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES				
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1898 FSL 0875 FEL	COUNTY: UINTAH						
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NESE Section: 20	STATE: UTAH						
11. CHE	CK APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPORT,	OR OTHER DATA				
TYPE OF SUBMISSION	TYPE OF ACTION						
	ACIDIZE	ALTER CASING	CASING REPAIR				
□ NOTICE OF INTENT	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME				
Approximate date work will start:	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE				
SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN ☐	FRACTURE TREAT	☐ NEW CONSTRUCTION				
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	☐ PLUG BACK				
	✓ PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION				
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON				
		1					
✓ DRILLING REPORT	☐ TUBING REPAIR	VENT OR FLARE	☐ WATER DISPOSAL				
Report Date: 11/14/2011	☐ WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION				
11/14/2011	☐ WILDCAT WELL DETERMINATION ☐	OTHER	OTHER:				
THE SUBJECT WELL	MPLETED OPERATIONS. Clearly show all pertin WAS PLACED ON PRODUCTION OGICAL WELL HISTORY WILL B WELL COMPLETION REPORT	ON 11/14/2011 AT 1400 E SUBMITTED WITH THE T. A U Oil					
NAME (PLEASE PRINT) Sheila Wopsock	<b>PHONE NUMBER</b> 435 781-7024	TITLE Regulatory Analyst					
SIGNATURE		DATE					
N/A		11/15/2011					

Sundry Number: 20360 API Well Number: 43047401360000

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NAME (PLEASE PRINT) Sheila Wopsock	<b>PHONE NUMBER</b> 435 781-7024	TITLE Regulatory Analyst					
SIGNATURE		DATE					
N/A		11/15/2011					

# **RECEIVED** JAN 0:3 2012

Form 3160-4 (August 2007)

# UNITED STATES DEPARTMENT OF THE INTERIOR OF OIL, GAS & MINING

FORM APPROVED OMB No. 1004-0137 Expires: July 31, 2010

# WELL COMPLETION OR RECOMPLETION REPORT AND LOG

	WELL (	COMPL	ETION C	RRI	ECO	MPL	ETIC	N REP	ORT	AND L	.OG				ase Serial I TU0575	Ňo.	
la. Type of	_	Oil Well	_		D 1	•	00							6. If	Indian, Allo	ottee or	Tribe Name
b. Type of	f Completion	Othe	lew Well er	ell					esvr.		nit or CA A		ent Name and No.				
2. Name of KERR I	Operator MCGEE OIL	. & GAS	ONSHORE	-Mail:	gina.l	Conta	ct: GI	NA T. BE	CKER			***	*****		ase Name a		ll No.
3. Address		73779			9	Jooner	<u>w</u> anc	3a. Ph	one No	o. (include 9-6086	e area c	code)			PI Well No.		43-047-40136
4. Location	of Well (Re	port locat	on clearly ar	d in ac	corda	nce wit	h Fede							10. F	ield and Po	ol, or E	Exploratory
At surfa	ce NESE	1898FSI	875FEL 4	0.0194	173 N	Lat, 10	9.569	9281 W L	on				1		ATURAL I ec., T., R.,		S Block and Survey
At top p	rod interval i	reported b	elow NES	E 189	8FSL	875FI	EL 40	.019473 N	I Lat,	109.5692	281 W	Lon	ŀ	or Area Sec 20 T9S R21E Mer SLB  12. County or Parish 13. State			
At total		SE 1898	SL 875FEI	40.0°			, 109.			Complet	- 1	·		U	INTÁH		UT
07/01/2	07/01/2011							od.	17. E	levations () 482	DF, KE 28 GL	3, RT, GL)*					
18. Total D	Otal Depth: MD 10195 TVD 10193 19. Plug Back T.D.: MD 10160 20. D				20. Dep	th Brio	lge Plug Se		MD TVD								
21. Type FI	pe Electric & Other Mechanical Logs Run (Submit copy of each)  NTHETIC TRIPLE COMBORSL/SM-CBL/GR/COLLARS  22. Was well component to the component of the compon					?	No 1	Yes	(Submit analysis) (Submit analysis)								
23. Casing an													ional Sur	vey?	₩ No		(Submit analysis)
Hole Size	Size/G		Wt. (#/ft.)	T	op (D)		tom	Stage Cer Dept		i	f Sks.		Slurry		Cement 7	Гор*	Amount Pulled
20.000	14.0	000 STL	36.7	(10)	0	<del>+ `</del>	40	<del></del>	41	Туре о	n Cenn	28	(BB)	L)			
12.250		325 J-55	36.0		0		2714					580				0	
7.875 7.875	·	500 I-80 0 P-110	11.6 11.6	<u> </u>	0 9480	<del>                                     </del>	9480 0181				1	1616				1640	
	,,,,,		11.0		0400		0101				<u>-</u>						
24. Tubing	Record			<u> </u>		<u> </u>		<u> </u>									
	Depth Set (M	(ID) P	acker Depth	(MD)	Si	ze	Dept	h Set (MD)	) P	acker Der	oth (M)	D)	Size	De	pth Set (MI	0)	Packer Depth (MD)
2.375	2.375 9599					(1112)											
						Size	No. Holes Perf. Status										
A)	WASA	ATCH		7829		785	0	1011	Jiatea	**************************************			0.36				
B)	MESAVE	RDE		7866		1003	4		*	7866 TC	1003	7	0.36	30	205		
C) D)							┿		-			+		+-			
	acture, Treat	ment, Cer	nent Squeeze	, Etc.				· · · · · · · · · · · · · · · · · · ·								<u> </u>	
]	Depth Interva		207 DUMP 0	. C2O D	DI 0 0	LIOKII	00.400	740   50		mount and		of M	aterial				
	/82	9 10 10	)37 PUMP 8	,039 B	BLS S	LICK H	20 163	3,740 LBS 3	30/50 C	AWA	SAND		<del></del>				
28. Producti	ion - Interval	A	!											·			
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL		Gas MCF		Vater BBL	Oil Gr Corr.			Gas		Producti	on Method		
11/14/2011	11/19/2011	24	Troudedon -	0.		2009		315.0	Corr. 2	AFI		Gravity			FLOV	VS FRC	M WELL
Choke Size 20/64	Tbg. Press. Flwg. 1591 SI	Csg. Press. 2483.0	24 Hr. Rate	Oil BBL 0	- 1	Gas MCF 200	E	Vater BBL 315	Gas:O Ratio	il	V	Well St	atus GW			,	
	tion - Interva			<u>`</u>				010	<u> </u>				GVV				
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL		Gas MCF		Vater BBL	Oil Gr Corr.			Gas Gravity		Producti	on Method	· · · · · · · · · · · · · · · · · · ·	**************************************
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL		Gas MCF		Vater BBL	Gas:O Ratio	il	V	Well St	atus	<del></del>			· · · · · · · · · · · · · · · · · · ·
	D)	<u> </u>		L					1								

28h Prod	luction - Inter	vol C		······								
Date First	Test	Hours	Т4	lo"	7.	I I				· · · · · · · · · · · · · · · · · · ·		
Produced	Date	Tested	Test Production	Oil BBL	Gas MCF		Oil Gravity Corr. API		las Travity	Production Method		
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF		Gas:Oil Ratio	W	Vell Status			
28c Prod	luction - Inter	vol D		<u> </u>								
Date First	Test	Hours	Test	Oil	Ican	Two-to-	010 :	1.		<u> </u>		
Produced	Date	Tested	Production	BBL	Gas MCF		Oil Gravity Corr. API		as Travity			
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF		Gas:Oil Ratio	W	Vell Status	·		<u> </u>
29. Dispo SOLI	osition of Gas D	(Sold, used	for fuel, vent	ed, etc.)			· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·				<u> </u>
30. Sumn	nary of Porou	s Zones (In	clude Aquife	rs):		·	·		31. For	mation (Log) Mark	ers	
tests,	all important including dep ecoveries.	zones of poth interval	orosity and c tested, cushic	ontents the	reof: Core	d intervals and all en, flowing and sh	drill-stem ut-in pressi	ures	:			
	Formation		Тор	Botton	1	Descriptions,	, Contents,	etc.	Name			Top Meas. Depth
32. Addit Attac	ional remarks hed is the ch	(include p	lugging proc al well histo	edure): ry, perfora	tion repo	rt & final survey.			BIR MA WA	EEN RIVER ID'S NEST HOGANY SATCH SAVERDE		1647 1944 2399 4968 7864
33 Circle	e enclosed atta	ahmanta								· · · · · · · · · · · · · · · · · · ·		
	e enclosed atta ectrical/Mech		: (1 full cot ==	ea'd )		2. Geologic Re	en ort		2 Demp		4 D: 0	.10
	ndry Notice f				n	6. Core Analys	•		3. DST Rep 7 Other:	oort	4. Direction	ial Survey
34. I here	by certify tha	t the forego								records (see attach	ed instructio	ns):
			Elect			26977 Verified by E OIL & GAS O				stem.		
Name	e(please print	GINA T.	BECKER	· · · · · · · · · · · · · · · · · · ·			Title	REGUL	ATORY AN	ALYST	***	<del></del>
Signa	ture	(Electror	ic Submiss	ion)			Date	12/29/20	011		·	
						· · · · · · · · · · · · · · · · · · ·						
Title 18 U	J.S.C. Section ited States an	1001 and y false, fict	Title 43 U.S.	C. Section	1212, mak	ce it a crime for an	y person k	nowingly a	and willfully	to make to any dep	artment or a	gency

# **Operation Summary Report**

Well: NBU 921-20IT YELLOW	Spud Conductor: 7/2/2011	Spud Date: 7/13/2011
Project: UTAH-UINTAH	Site: NBU 921-20I PAD	Rig Name No: PROPETRO 11/11, H&P 298/298
Event: DRILLING	Start Date: 6/25/2011	End Date: 9/13/2011

Active Datum: RKB @4,854.00usft (above Mean Sea

UWI: NE/SE/0/9/S/21/E/20/0/0/26/PM/S/1898/E/0/875/0/0

Level)									
Date	F (4)	Time tart-End	Duration (hr)	Phase	Code	Sub	P/U	MD From (usft)	Operation
7/13/2011			2.50	MIRU	01	С	Р		MOVE RIG IN OFF THE NBU 921-20P1BS
		- 19:30	2.00	MIRU	01	В	Þ		DRESS TOP OF CONDUCTOR. INSTALL DIVERTER HEAD AND BOWIE LINE. BUILD DITCH. AND RIG UP SET CATWALK AND PIPE RACKS. RIG UP AND PRIME PIT PUMP AND MUD PUMP
		20.00	0.50	DRLSUR	06	Α	Р		P/U 1.83 DEG BENT HOUSING HUNTING MTR SN 8014 . 7/8 LOBE .17 RPM. M/U 12.1/4" QD507 SN 7020485 1ST RUN, W/ 7-18'S. INSTALL RUBBER
	20:00	- 22:00	2.00	DRLSUR	02	В	Р		SPUD SURFACE 07/13/2011 @ 20:00 HRS. DRILL 12.1/4" SURFACE HOLE F/40'-210' (170' @ 85'/HR)
									PSI ON/ OFF 700/450, UP/ DOWN/ ROT 27/22/25, 500 GPM, 45 RPM ON TOP DRIVE, 15-18K WOB
	22:00	- 22.30	0.50	DRLSUR	06	Α	Р		TOH T/P/U DIR TOOLS
	22:30	- 0:00	1.50	DRLSUR	06	Α	P		P/U DIR TOOLS & SCRIBE, TIH T/210'
7/14/2011	0:00	- 3:00	3.00	DRLSUR	02	В	Р		DRILL 12 1/4" SURFACE HOLE F/210' -470' (260' @ 87'/HR) PSI ON/ OFF 900/700, UP/ DOWN/ ROT 45/40/42. 130 SPM, 532 GPM, 18-20K WOB, 45 RPM ON TOP DRIVE,90 RPM ON MM , CIRCULATING RESERVE PIT
	3:00	- 6:00	3.00	ALL	08	В	Ž · .		BLEW HYDRAULIC HOSE ON TOP HEAD, WAIT ON PARTS F/TOWN, REPLACE HYDRAULIC HOSE
	6:00	- 16:00	10,00	DRLSUR	02	В	Р		DRILL 12 1/4" SURFACE HOLE F/470' -1690' (1220' @ 122'/HR) PSI ON/ OFF 1500/1290, UP/ DOWN/ ROT 65/58/60. 130 SPM, 532 GPM, 18-20K WOB, 45 RPM ON TOP DRIVE,90 RPM 0N MM, CIRCULATING RESERVE PIT
	16:00	- 0:00	8.00	DRLSUR	02	В	P		DRILL 12 1/4" SURFACE HOLE F/1690' -2360' (670' @ 84'/HR) PSI ON/ OFF 1750/1500, UP/ DOWN/
									ROT 74/64/70. 130 SPM, 532 GPM, 18-20K WOB, 45
									RPM ON TOP DRIVE,90 RPM 0N MM , CIRCULATING RESERVE PIT
7/15/2011	0:00	- 4:30 - 10:30	4.50 6.00	DRLSUR	02 05	В	P P		DRILL 12 1/4" SURFACE HOLE F/2360' -2720' (360' @ 80'/HR) PSI ON/ OFF 1910/1630, UP/ DOWN/ ROT 80/66/74. 130 SPM, 532 GPM, 18-20K WOB, 45 RPM ON TOP DRIVE,90 RPM 0N MM, CIRCULATING RESERVE PIT(TD 12 1/4" SURF. HOLE)
									L/D DRILL STRING,BHA & DIR TOOLS
	10.00	- 11:30	1.00	CSG	12	Α	Р		MOVE CATWALK AND PIPE RACKS,MOVE CSG OVER TO WORK AREA,R/U T/RUN 9 5/8" 36# SURF. CSG
	11:30	- 15:00	3.50	CSG	12	С	P		HOLD SAFTEY MEETING, RUN FLOAT SHOE , SHOE JNT, BAFFLE & 60 JNTS 9 5/8" 36# LT&C CSG W/THE
	15:00	- 16:30	1.50	CSG	12	В	Р	· 	SHOE SET @2692' & THE BAFFLE @2646' RUN 125' I" PIPE DOWN ANNULUS,INSTALL CEMENT HEAD,R/U PRO PETRO CEMENTERS

# **Operation Summary Report**

 Well: NBU 921-20IT YELLOW
 Spud Conductor: 7/2/2011
 Spud Date: 7/13/2011

 Project: UTAH-UINTAH
 Site: NBU 921-20I PAD
 Rig Name No: PROPETRO 11/11, H&P 298/298

 Event: DRILLING
 Start Date: 6/25/2011
 End Date: 9/13/2011

Event: DRILLING			Start Date	e: 6/25/20	11			End Date: 9/13/2011				
Active Datum: RI	(B @4,8	354.00usft (a	bove Mean Se	ea	UWI: NE	/SE/0/9/	S/21/E/20	/0/0/26/PM/S/189	8/E/0/875/0/0			
Level)												
Date		Time	Duration	Phase	Code	Sub	P/U	MD From	Operation			
		tart-End	(hr)		17.5	Code		(usft)				
	16:30	- 17:30	1.00	CSG	12	Е	Р		HOLD SAFETY MEETING. TEST LINES TO 2000 PSI.			
									PUMP 15 BBLS OF 8.4# H20 AHEAD, FULL RETURNS			
									PUMP 20 BBLS OF 8.4# GEL WATER AHEAD. PUMP			
									250 SX(170 BBLS) 11# 3.82 YIELD LEAD CEMENT,			
									PUMP 200 SX (41 BBLS) OF 15.8# 1.15 YIELD			
									TAIL(2% CALC, 1/4# /SK OF FLOCELE).DROP PLUG			
									ON FLY AND DISPLACE W201 BBLS OF 8.4# H20.			
									LIFT PRESSURE WAS 600 PSI, BUMP PLUG AND			
									HOLD 1000 PSI FOR 5 MIN. FLOAT HELD,FULL RETURNS THRU OUT JOB ,41 BBLS LEAD CEMENT			
									TO SURF, CEMENT FELL BACK			
	17:30	- 18:00	0.50	CSG	12	F	Р		TOP OUT THRU 1" PIPE W/100 SKS 15.8			
									PPG,CLASS "G" CEMENT W/4% CACL2 & 1/4#/SK			
									FLOCELE, CEMENT TO SURF, CEMENT FELL BACK			
	18:00	- 19:30	1.50	CSG	13	Α	Р		WAIT ON CEMENT			
	19:30	- 20:00	0.50	CSG	12	F	P		TOP W/30 SKS 15.8 PPG,CLASS "G" CEMENT W/4%			
									CACL2 & 1/4#/SK FLOCELE, CEMENT TO			
									SURF,STAYED @ SURF.(RELEASE RIG @ 20:00			
								*	07/15/2011)			
9/8/2011	0:00	- 5:00	5.00	MIRU	01	С	P		SKID RIG 10', JUMP SKID RAILS,/ SKID RIG 10' TO			
									THE NBU 921-20IT /,ALIGN RIG OVER WELL			
	5:00	- 7:00	2.00	PRPSPD	14	Α	P		NU BOP,/ FLOWLINE /ADD, EXTENTION TO MUD LINE			
	7:00	- 11:00	4.00	PRPSPD	15	Α	P		PRESSURE TEST PIPE RAMS, BLIND RAMS, IBOP,			
									FLOOR VALVE, KILL LINES & KILL LINE VALVES,			
									BOP WING VALVES , HCR VALVE + CHOKE LINE;			
									INNER AND OUTER CHOKE VALVES & MANIFOLD			
									TO 250 PSI LOW @ 5 MINUTES + 5000 PSI HIGH @			
									10 MINUTES / TEST ANNULAR TO 250 PSI LOW @ 5			
									MINUTES + 2500 PSI HIGH @ 10 MINUTES / TEST			
									SUPER CHOKE + SURFACE CASING TO 1500 PSI @			
	11:00	- 11:30	0.50	PRPSPD	14	В	P .		30 MINUTES -			
		- 12:00	0.50	PRPSPD		A			INSTALL WEAR BUSHING			
		- 12:30			09	Α	P		CUT DRILL LINE			
	12:30		0.50	PRPSPD	23		Р		PRE SPUD INSPECTION			
	12.30	- 13:00	0.50	PRPSPD	06	Α	Р		P/U HUGHES BIT & EXCEL .24 RPG M MTR,INSTALL			
									MWD ,SCRIBE DIRECTIONAL TOOLS & SURFACE			
	13:00	- 14:30	1.50	PRPSPD	06	۸	Р		TEST SAME			
		14.50	1.50	FINFOFD	00	Α			TIH, W/BHA 15 STDS DP, CHECK DERRICK FOR			
	14:30	- 15:30	1.00	DRLPRO	02	Е	P		LEVEL, INSTALL ROTATING HEAD TAG CMT @2620,			
		10.00	1.00	DIVELLING	02	_	r		DRILL FLOAT TRAC,BAFFLE @ 2670,SHOE			
	15:30	- 0:00	8.50	DRLPRO	02	D ·	P		@2714,OPEN HOLE TO 2742			
						_	•		DRILL/SURVEY (ROTATE & SLIDE) F/2742 TO 3840 =1098 @ 143 FPH / / WOB 16K-23K / TOP DRIVE			
									RPM 30-50 / PUMP 124 SPM = 558GPM / PUMP			
									PRESSURE ON/OFF BOTTOM 2150/1800 PSI / MUD			
									MOTOR RPM 118 / PU/SO/ROT WT114/97/109/			
									TORQUE ON/OFF BOTTOM 6K/2K / SLIDE 88' IN .65			
									MIN 8% OF FOOTAGE DRILLED & 12% OF HRS			
									DRILLED/ H2O + POLYMER W/ WEIGHTED SWEEPS			
									+/- 2.0 PPG			

# **Operation Summary Report**

 Well: NBU 921-20IT YELLOW
 Spud Conductor: 7/2/2011
 Spud Date: 7/13/2011

 Project: UTAH-UINTAH
 Site: NBU 921-20I PAD
 Rig Name No: PROPETRO 11/11, H&P 298/298

 Event: DRILLING
 Start Date: 6/25/2011
 End Date: 9/13/2011

Event. DRILLING				Start Date	e: 6/25/20	11			End Date: 9/13/2011
Active Datum: RI	KB @4,8	354.00usft (al	bove Mean S	Sea	UWI: NE	E/SE/0/9	/S/21/E/20	0/0/0/26/P <b>M</b> /S/189	98/E/0/875/0/0
Date		Time	Duration	Phase	Code	6.1	Dui		A
		tart-End	(hr)	rudse	code	Sub Code	P/U	MD From (usft)	Operation
9/9/2011	0:00	- 6:00	6.00	DRLPRO	02	D	P	r	DRILL/SURVEY (ROTATE & SLIDE) F/3840 TO 4625 =785 @ 130.8 FPH // WOB 16K-22K / TOP DRIVE RPM 30-50 / PUMP 124 SPM = 558 GPM / PUMP
									PRESSURE ON/OFF BOTTOM 2200/1820 PSI / MUD MOTOR RPM 118 / PU/SO/ROT WT128/100/120/
									TORQUE ON/OFF BOTTOM 6K/2K / SLIDE 80' IN .60 MIN 10% OF FOOTAGE DRILLED & 16.6% OF HRS DRILLED/ H2O + POLYMER W/ WEIGHTED SWEEPS
	6:00	- 16:00	10.00	DRLPRO	02	D	P		+/- 2.0 PPG DRILL/SURVEY (ROTATE & SLIDE) F/4625 TO 5832
									=1207 @ 120.7 FPH / / WOB 16K-25K / TOP DRIVE RPM 30-50 / PUMP 124 SPM = 558 GPM / PUMP PRESSURE ON/OFF BOTTOM 2350/2050 PSI / MUD MOTOR RPM 118 / PU/SO/ROT WT153/130/141/ TORQUE ON/OFF BOTTOM 7K/3K / SLIDE 118' IN .100 MIN 9.7% OF FOOTAGE DRILLED & 16.6% OF HRS DRILLED/ H2O + POLYMER W/ WEIGHTED SWEEPS +/- 2.0 PPG
		- 16:30	0.50	DRLPRO	07	A	P		RIG SERVICE
		- 21:00	4.50	DRLPRO	02	D	Р		DRILL/SURVEY (ROTATE ) F/5832 TO 6207 =375  @83.3 FPH / / WOB 16K-26K / TOP DRIVE RPM  30-65 / PUMP 124 SPM = 558 GPM / PUMP  PRESSURE ON/OFF BOTTOM 2375/2050 PSI / MUD  MOTOR RPM 118 / PU/SO/ROT WT154/131/146/  TORQUE ON/OFF BOTTOM 7K/3K / H2O +  POLYMER W/ WEIGHTED SWEEPS +/- 2.0 PPG
	21:00	- 0:00	3.00	DRLPRO	06	A	P		PUMP SLUG TRIP FOR BIT, NO PROBLEM, HOLE GOOD, FUNCT TEST PIPE & BLIND RAMS
9/10/2011	0:00	- 1:00	1.00	DRLPRO	06	Α	Р		CHANGE OUT M MTR & BIT, INSTALL MWD , SCRIBE & SURFACE TEST TOOLS
	1:00	- 4:00	3.00	DRLPRO	06	A	Р		TIH,W BHA CHECK DERRICK FOR LEVEL, INSTALL ROT HEAD, BREAK CIRC @ SHOE,CIH WASH 120' TO BTM 5' FI
	4:00	- 6:00	2.00	DRLPRO	02	D	Р		DRILL/SURVEY (ROTATE ) F/6207 TO 6460 =253 @126.5 FPH / WOB 16K-23K / TOP DRIVE RPM 30-65 / PUMP 124 SPM = 558 GPM / PUMP PRESSURE ON/OFF BOTTOM 2250/2000 PSI / MUD MOTOR RPM 89 / PU/SO/ROT WT168/141/152/ TORQUE ON/OFF BOTTOM 8K/4K / H2O + POLYMER W/ WEIGHTED SWEEPS +/- 2.0 PPG
	6:00	- 17:00	11.00	DRLPRO	02	, D	Р		DRILL/SURVEY (ROTATE ) F/6460 TO 7530 =1070 @97.2 FPH / / WOB 16K-23K / TOP DRIVE RPM
									30-65 / PUMP 124 SPM = 558 GPM / PUMP
									PRESSURE ON/OFF BOTTOM 2250/2075 PSI / MUD MOTOR RPM 89 / PU/SO/ROT WT190/151/168/
									TORQUE ON/OFF BOTTOM 7K/6K / SLIDE 85' IN .95 MIN 8% OF FOOTAGE DRILLED & 14% OF HRS DRILLED / H2O + POLYMER W/ WEIGHTED SWEEPS
	17:00	- 17:30	0,50	DRLPRO	07	Α	Р		+/- 2.0 PPG RIG SERVICE
							· · · · · · · · · · · · · · · · · · ·		

12/14/2011

# **Operation Summary Report**

Well: NBU 921-20IT YELLOW Spud Conductor: 7/2/2011 Spud Date: 7/13/2011 Project: UTAH-UINTAH Site: NBU 921-201 PAD Rig Name No: PROPETRO 11/11, H&P 298/298 Event: DRILLING Start Date: 6/25/2011 End Date: 9/13/2011

Active Datum: Rk Level)	(B @4,8	54.00usft (	above Mean S	<del></del>	UWI: NE		/S/21/E/20	/0/0/26/PM/S/189	98/E/0/875/0/0
Date	17 18 18 18 18 18 18 18 18 18 18 18 18 18	Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation ·
	17:30	- 0:00	6.50	DRLPRO	02	D	P		DRILL/SURVEY (ROTATE ) F7530 TO 8090 =560  @86.1 FPH / / WOB 16K-23K / TOP DRIVE RPM  30-65 / PUMP 124 SPM = 558 GPM / PUMP  PRESSURE ON/OFF BOTTOM 2360/2180 PSI / MUD  MOTOR RPM 89 / PU/SO/ROT WT201/160/180/  TORQUE ON/OFF BOTTOM 8K/6K / / CLOSE IN PITS  /MUD UP MW 9.5 / 5' FLARE
9/11/2011	0:00	- 6:00	6.00	DRLPRO	02	Ď	P.		DRILL/SURVEY (ROTATE ) F8090 TO 8570=480
									@80 FPH / / WOB 16K-23K / TOP DRIVE RPM 30-65 / PUMP 124 SPM = 550 GPM / PUMP PRESSURE ON/OFF BOTTOM 2590/2380 PSI / MUD MOTOR RPM
									88 / PU/SO/ROT WT201/160/180/ TORQUE ON/OFF
					*.				BOTTOM 9K/6K / SLIDE 32' IN .50 MIN 8% OF FOOTAGE DRILLED & 16% OF HRS DRILLED/ MW
	6.00								10.4 VIS 34 / 10-15' FLARE / NO MUD LOSS
	6:00	- 14:30	8.50	DRLPRO	02	D	P		DRILL/SURVEY (ROTATE ) F/ 8 570 TO 9,042 = 472 @55.5 FPH / / WOB 16K-24K / TOP DRIVE RPM 30-50 / PUMP 110 SPM = 495 GPM / PUMP PRESSURE ON/OFF BOTTOM 2590/2340 PSI / MUD MOTOR RPM 79 / PU/SO/RWT218/170/189/ TORQUE ON/OFF BOTTOM 10K/7K / SLIDE 40' IN .105 MIN 9.6% OF FOOTAGE DRILLED & 21% OF HRS DRILLED/ MW 11.0 VIS 36 / 30 BBL MUD LOSS 10-15' FLARE
		- 15:00	0.50	DRLPRO	07	Α	P		RIG SERVICE
	15.00	- 0:00	9.00	DRLPRO	02	D	Р		DRILL/SURVEY (ROTATE ) F/ 9,042 TO 9,598 = 556  @61.7 FPH / / WOB 16K-24K / TOP DRIVE RPM  30-50 / PUMP 110 SPM = 495 GPM / PUMP  PRESSURE ON/OFF BOTTOM 2590/2340 PSI / MUD  MOTOR RPM 79 / PU/SO/RWT218/170/189/ TORQUE  ON/OFF BOTTOM 10K/7K/ MW 11.4 VIS 38 / 10'  FLARE ON CONN / NO MUD LOSS
9/12/2011	0:00	- 6:00	6.00	DRLPRO	02	Ď	P		DRILL/SURVEY (ROTATE ) F/ 9,598 TO 9,850 = 252
									@42 FPH // WOB 16K-25K / TOP DRIVE RPM 30-50 /
									PUMP 110 SPM ≈ 495 GPM / PUMP PRESSURE ON/OFF BOTTOM 2600/2450 PSI / MUD MOTOR RPM 79 / PU/SO/ROT WT 220/175/199/ TORQUE ON/OFF BOTTOM 9K/7K/ MW 11.4 VIS 38 / 10' FLARE ON
	6.00	44.00				_	_		CONN / NO MUD LOSS
	6:00	- 14:00 - 15:00	8.00	DRLPRO	02	C	P		DRILL/SURVEY (ROTATE ) F/ 9850 TO 10,195 TD= 345 @43.1 FPH / / WOB 16K-25K / TOP DRIVE RPM 30-50 / PUMP 110 SPM = 495 GPM / PUMP PRESSURE ON/OFF BOTTOM 2790/2480 PSI / MUD MOTOR RPM 79 / PU/SO/ROT WT 229/188/206/ TORQUE ON/OFF BOTTOM 10K/7K/ MW 11.8 VIS 38 / 10' FLARE ON CONN / NO MUD LOSS CCH / PUMP SWEEP
		- 16:30	1,50	DRLPRO	06	E	P		WIPER TRIP TO 8000' / HOLE GOOD
	16:30	- 18:00	1.50	DRLPRO	05	c	P		CCH / F/ CASING BTMS UP 15' FLARE
	18:00	- 23:00	5.00	DRLPRO	06	D	P		TOH,NO TIGHT SPOTS,HOLE TOOK PROPER FLUID, FLOW CHECK @ CSG SHOE,PULL ROT RUBBER,,BREAK BIT LD M MTR,FUNCT TEST PIPE &
	23:00	- 23:30	0.50	CSG	14	В	Р	· · · · · · · · · · · · · · · · · · ·	BLIND RAMS PULL WEAR BUSHING, CHANGE TO 18' BAILS

# **Operation Summary Report**

Well: NBU 921-20IT YELLOW	Spud Conductor: 7/2/2011	Spud Date: 7/13/2011
Project: UTAH-UINTAH	Site: NBU 921-20I PAD	Rig Name No: PROPETRO 11/11, H&P 298/298
Event: DRILLING	Start Date: 6/25/2011	End Date: 9/13/2011

ctive Datum: RI	54 00ueff (al	ove Mean S	Start Dai			SIDIFIDO	/0/0/26/PM/S/189	End Date: 9/13/2011			
Active Datum: RKB @4,854.00usft (above Mean Sea Level)						EISEIOISI	S/21/E/20	/0/0/26/PIVI/S/189	98/E/0/875/0/0		
Date	100000000000000000000000000000000000000	Time art-End	Duration (hr)	Phase	Code	Sub	P/U	MD From	Operation		
4 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		- 0:00	0.50	CSG	12	Code A	P	(usft)	USM AWERO COCALE TO A SECOND		
			5,55	000	12	^ .			HSM W/RIG CREW & FRANKS WESTATES		
9/13/2011	0:00	- 1:30	1.50	CSG	12	Α	Р	•	CASERS, RU CSG EQUIP		
					12	^	P		HSM W/ FRANKS WESTATES & RIG CREWS R/U CASING EQUIP		
	1:30	- 12:30	11.00	CSG	12	С	Ρ.,		M/U FLOAT EQUIP RUN 17 JTS P-110 11.6# BT&C		
									4.5 CASING +224 JTS,I-80,11.6#,BT&C 4.5 CASING+		
									RELATED TOOLS / BREAKING CIRCULATION @		
									SELECTED INTERVALS / HOLDING CSG @ 10,180		
									FOR CIRC,& CEMENTING.		
	12:30	- 14:00	1.50	CSG	05	D	Ρ		CIRC CASING / RD WESTATES CASERS		
	14:00	- 16:30	2.50	CSG	12	E	P		SAFETY MEETING (REVIEW J.S.A.) M.I.R.U. BJ		
									EQUIPMENT / TEST PUMPS & LINES TO 5,000 PSI /		
									PUMP 5 BBLS H2O / 10 BBL (20 SKS) SCAVENGER		
									@10.8 ppg 3.55 yield + 516 SX LEAD CEMENT @		
									11.8 ppg (PREM LITE II + .25 pps CELLO FLAKE + 5		
									pps KOL SEAL + .05 lb/sx STATIC FREE + 10%		
									bwoc BENTONITE + .2% bwoc SODIUM META		
									SILICATE + .4 % R-3 + 222.4 BBLS FRESH WATER /		
									(13.67gal/sx, 2.42 yield) + 1100 SX TAIL @ 14.3 ppg		
									(CLS G 50/50 POZ + 10% SALT + .05llbs/sx STATIC		
									FREE + .2% R3 + .002 GPS FP-6L + 2% BENTONITE		
									+ 256.6 BBLS H2O / (5.90 gal/sx, 1.31 yield) / DROP		
									PLUG & DISPLACE W/ 158 BBLS H2O + ADDITIVES		
									PLUG DOWN @ 16:11 HOURS / FLOATS HELD W/ 2		
									BBLS H2O RETURNED TO INVENTORY/ GOOD CIR		
									THROUGHOUT W/ 17 BBLS LEAD TO PIT LIFT		
									PRESSURE @2940 PSI / BUMP PRESSURE TO 3682		
									PSI / TOP OF TAIL CEMENT CALCULATED @ 3862 /		
									RIG DOWN CMT EQUIP/ CSG SHOE 10,180,FC @		
									10,161 TOP OF MKR JT MV 7919 ,MKR JT		
									WASATCH 4995		
	16:30	- 18:00	1.50	CSG	14	Α	Р		P/U BOP STACK, SET C-22 11X41/2 CASING SLIPS		
									W 105K CUT OFF & L/D LANDING JT,PREP TO SKID		
									RELEASE RIG TO NBU 921-20J4BS@1800 HRS		
									9/13/2011		

#### 1 General

#### 1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

#### 1.2 Well/Wellbore Information

Well	NBU 921-20IT YELLOW	Wellbore No.	ОН
Well Name	NBU 921-20IT	Wellbore Name	NBU 921-20IT
Report No.	1	Report Date	11/4/2011
Project	UTAH-UINTAH	Site	NBU 921-20I PAD
Rig Name/No.		Event	COMPLETION
Start Date	11/4/2011	End Date	11/15/2011
Spud Date	7/13/2011	Active Datum	RKB @4,854.00usft (above Mean Sea Level)
UWI	NE/SE/0/9/S/21/E/20/0/0/26/PM/S/1898/E/0/875/0/0		

#### 1.3 General

Contractor	CASED HOLE SOLUTIONS	Job Method	PERFORATE	Supervisor	DAVE DANIELS
Perforated Assembly	PRODUCTION CASING	Conveyed Method	WIRELINE		

1.5

Summary

#### 1.4 Initial Conditions

Fluid Type		Fluid Density	Gross interval	7,829.0 (usft)-10,037.0 (us	Start Date/Time	11/11/2011	12:00AM
Surface Press		Estimate Res Press	 No. of intervals	42	End Date/Time	11/11/2011	12:00AM
TVD Fluid Top		Fluid Head	Total Shots	0	Net Perforation Interval		65.00 (usft)
Hydrostatic Press		Press Difference	Avg Shot Density	0.00 (shot/ft)	Final Surface Pressure		
Balance Cond	NEUTRAL				Final Press Date		

#### 2 Intervals

#### 2.1 Perforated Interval

Date	Formation/ CCL@ (usft)	CCL-T MD Top S (usft) (usft)	MD Base Shot (usft) Density (shot/ft)	Add. Shot r	e Carr Type /Carr Manuf Carr Size (in)	Phasing Charge Desc /Charge Des	
11/11/201	WASATCH/	7,829.0	7,830.0	0.36	80 EXP/ 3.375	90.00	23.00 PRODUCTIO
1							N
12:00AM	i i	:	:	: :		l l	

#### 2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ CCL-T (usft) S	MD Top (usft)	MD Base (usft)	Shot Density	Misfires/ Add. Shot	Diamete r	Carr Type /Carr Manuf	Carr. Size	Phasing	Charge Desc /Charge Manufacturer	Charge Weight	Reason	Misrun
	Reservoir	(usit) (usit)	(usii)		(shot/ft)	Add, Shot	(in)		(in)	(°)	iyanulactuler	(gram)		To have set
11/11/201 1	WASATCH/		7,848.0	7,850.0			0.360	EXP/	3.375	90.00	and printing realized production of the second		PRODUCTIO N	
12:00AM														
11/11/201 1	MESAVERDE/		7,866.0	7,868.0	:		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
12:00AM	[												<u>:</u>	
11/11/201 1	MESAVERDE/		7,898.0	7,900.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
12:00AM	· ·	1					:		L					
1	MESAVERDE/		7,920.0	7,921.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
12:00AM	MEON/CDDE/		7.005.0	7.007.0			0.000	EVD/						
1	MESAVERDE/		7,965.0	7,967.0			0.360	EXP	3.375	90.00		23.00	PRODUCTIO N	
12:00AM	***************************************		7.004.0	7.000.0			0.000	**************************************						
11/11/201 1 12:00AM	MESAVERDE/		7,994.0	7,996.0		:	0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
	MESAVERDE/		8.084.0	8.086.0			0.360	FXP/	3.375	90.00	., ., .,, ., ., ., ., ., ., ., ., ., .,	23.00	PRODUCTIO	
1 12:00AM			0,00 1.0	5,050.0			0.000		0.070	00.00		25.00	N	
11/11/201 1	MESAVERDE/		8,158.0	8,160.0			0.360	EXP/	3.375	90.00	:	23.00	PRODUCTIO N	·
12:00AM			.,										: : &=	
1	MESAVERDE/		8,200.0	8,202.0			0.360	EXP/	3.375	90.00			PRODUCTIO N	
12:00AM	MESAVERDE/		8,236,0	8.237.0			0.360	EVDI	2 275	00.00		22.00	DDODUGTIO	·
11/11/201 1	MESAVERDE/		0,230.0	0,237.0			0.360	EAP/	3.375	90.00			PRODUCTIO N	
12:00AM		1									:			
11/11/201 1	MESAVERDE/	:	8,252.0	8,253.0			0.360	EXP/	3.375	90.00			PRODUCTIO N	
12:00AM														
1	MESAVERDE/		8,278.0	8,280.0			0.360	EXP/	3.375	90.00			PRODUCTIO N	
12:00AM	MEON (EDDE)		0.040.0				0.000		0.075					
1	MESAVERDE/		8,318.0	8,320.0			0.360	=XP/	3.375	90.00			PRODUCTIO N	
12:00AM	MESAVERDE/	<u></u>	8,388.0	8,390,0			0.360	EXDI	3.375	90.00		22 00	PRODUCTIO	
11/11/201   1 12:00AM	IVIEOAVERDE/		0,300.0	0,080.0			0.360	-AF/	3.375 <sub>]</sub>	90.00			N PRODUCTIO	

#### 2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T	MD Top (usft)	MD Base (usft)	Shot Density	Misfires/ Add. Shot	Diamete	Сап	r Type /Carr Manuf	Carr Size	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight	Reason	Misrun
			(usft)	V Z		(shot/ft)		(in)			(in)	Y 1	individualisi	(gram)		
11/11/201 1	MESAVERDE/			8,414.0	8,415.0			0.360	EXP/		3.375	90.00			PRODUCTIO N	-
12:00AM										·						
1	MESAVERDE/			8,431.0	8,432.0			0.360	EXP/		3.375	90.00		23.00	PRODUCTIO N	
12:00AM															<u> </u>	
1	MESAVERDE/			8,476.0	8,478.0			0.360	EXP/	:	3.375	90.00		23.00	PRODUCTIO N	
12:00AM	:		;												:	
1	MESAVERDE/			8,532.0	8,534.0			0.360	EXP/		3.375	90.00			PRODUCTIO N	-
12:00AM	in the second contract of the second contract							·		······································						
1	MESAVERDE/			8,588.0	8,590.0			0.360	EXP/		3.375	90,00		23.00	PRODUCTIO N	
12:00AM			::													
1	MESAVERDE/			8,630.0	8,632.0			0.360	EXP/		3.375	90.00	:	23.00	PRODUCTIO N	
12:00AM	BATO AL (EDDE)		i	0.050.0	0.004.0			0.000	EVD/		0.075	00.00				
11/11/201 1 12:00AM	MESAVERDE/			8,659.0	8,661.0			0.360	EXP/		3.375	90.00		23.00	PRODUCTIO N	
	MESAVERDE/		[	8,718.0	8.720.0			0.360	EYD/		3.375	90.00	to the term to the above the control of the con-	23.00	PRODUCTIO	:
1 1 12:00AM	WESAVERDE/			0,710.0	0,720.0	:		0.360	EXF/		3.375	90.00			N	
	MESAVERDE/			8 806 0	8.807.0			0.360	FXP/		3.375	90.00		23.00	PRODUCTIO	
1 12:00AM	WEO, WEIGH			0,000.0	0,00110			0.000		•	0.070	00.00			N	
	MESAVERDE/			8,829.0	8,830.0			0.360	EXP/		3.375	90.00		23.00	PRODUCTIO	
1															N	•
12:00AM																
1	MESAVERDE/			8,924.0	8,925.0			0.360	EXP/		3.375	90.00			PRODUCTIO N	
12:00AM	·															
1	MESAVERDE/			8,964.0	8,965.0			0.360	EXP/		3.375	90.00			PRODUCTIO N	
12:00AM	; ;										· · · · <u></u>					
1	MESAVERDE/			9,052.0	9,054.0			0.360	EXP/		3.375	90.00	:		PRODUCTIO N	
12:00AM	MEON/EDDE	<u> </u>		0.000.5	0.422.5			0.000				00.00			BRABILATIA	
11/11/201 1 12:00AM	MESAVERDE/			9,399.0	9,400.0			0.360	EXP/	±	3.375	90.00			PRODUCTIO N	

# 2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S	MD Top (usft)	MD Base (usft)	Shot Density	Misfires/ Add. Shot	Diamete	Carr Type /Carr Manuf	Carr Size	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight	Reason	Misrun
		1	(usft)			(shot/ft)		(in)		(in)	'	imanulaciano	(gram)		
11/11/201	MESAVERDE/			9,420.0	9,421.0		:	0.360	EXP/	3.375	90.00			PRODUCTIO N	
12:00AM									:					; IN :	
	MESAVERDE/		. :	9,517.0	9,518.0		1 <del>-</del> 1 - 2 / 1 -	0.360	EXP/	3.375	90.00		23.00	PRODUCTIO	:
12:00AM													:		
11/11/201 1	MESAVERDE/			9,540.0	9,541.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
12:00AM															:
11/11/201 1	MESAVERDE/			9,559.0	9,560.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	: -
12:00AM	And the second s							: <b></b>				***************************************			
1	MESAVERDE/			9,574.0	9,575.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
12:00AM														: :	
1	MESAVERDE/			9,587.0	9,588.0			0.360	EXP/	3.375	90.00	:		PRODUCTIO N	
12:00AM															
1	MESAVERDE/			9,628.0	9,630.0			0.360	EXP	3.375	90.00			PRODUCTIO N	
12:00AM	MESAVERDE/			9,688.0	9,690,0			0.360	EVD/	3.375	90.00		22.00	PRODUCTIO	
1	WESAVERDE			9,000.0	9,090.0			0.360		3.375	90.00			N PRODUCTIO	
12:00AM		÷		0.740.0	0.700.0			0.000							
1	MESAVERDE/		: : :	9,718.0	9,720.0			0.360	EXP/	3.375	90.00			PRODUCTIO N	
12:00AM					0.700.0										
1	MESAVERDE/			9,779.0	9,780.0			0.360	EXP/	3.375	90.00			PRODUCTIO N	
12:00AM													فينج يبريدن حاء		
1	MESAVERDE/			9,802.0	9,803.0		:	0.360	EXP/	3.375	90.00	; ;		PRODUCTIO N	
12:00AM				0.000.0	0.004.0	بيد ساد د د		0.000	······································						
1	MESAVERDE/			9,822.0	9,824.0			0.360	EXP/	3.375	90.00	:		PRODUCTIO N	
12:00AM	MESAVERDE/			10,035.0	10,037.0			0.360	EVD/	3.375	90.00		72.00	DDODUOTIC	
11/11/201 1 12:00AM	WIEGAVERDE/			10,000.0	10,037.0			0,360 1	LAF/	3,313	90.00			PRODUCTIO N	

# 3 Plots

# **Operation Summary Report**

Well: NBU 921-20IT YELLOW	Spud Conductor: 7/2/2011	Spud Date: 7/13/2011
Project: UTAH-UINTAH	Site: NBU 921-20I PAD	Rig Name No: ROYAL WELL SERVICE 2/2
Event: COMPLETION	Start Date: 11/4/2011	End Date: 11/15/2011
Active Datum: RKB @4,854.00usft (above	e Mean Sea UWI: NE/SE/0/9/S/21/	E/20/0/0/26/PM/S/1898/E/0/875/0/0

Active Datum: RK .evel)	.b @4,65	4.00usit (ab	ove iviean Sea	1	UWI: NE/SE/0/9/S/21/E/20/0/0/26/PM/S/1898/E/0/875/0/0								
Date	THE STATE OF	ime rt-End	Duration (hr)	Phase	Code	Sub P/U Code	MD From Operation (usft)						
11/3/2011	11:00	- 14:00	3.00	COMP	33	P	FILL SURFACE CSG. MIRU B&C QUICK TEST. PSI TEST T/ 1000 PSI. HELD FOR 15 MIN LOST 22 PSI. PSI TEST T/ 3500 PSI. HELD FOR 15 MIN LOST 41 PSI. PSI TEST T/ 7000 PSI. HELD FOR 30 MIN LOST 88 PSI NO COMMUNICATION WITH SURFACE CSG BLED OFF PSI. SWIFN						
11/4/2011	7:00	- 9;30	2.50	COMP	37	. <b>P</b>	PERF STG 1)PU 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH PERF AS PER PERF DESIGN. POOH. SWIFW						

# **Operation Summary Report**

Well: NBU 921-20IT YELLOW	Spud Conductor: 7/2/2011	Spud Date: 7/13/2011
Project: UTAH-UINTAH	Site: NBU 921-20I PAD	Rig Name No: ROYAL WELL SERVICE 2/2
Event: COMPLETION	Start Date: 11/4/2011	End Date: 11/15/2011

Active Datum: RKB @4,854.00usft (above Mean Sea

Level)

UWI: NE/SE/0/9/S/21/E/20/0/0/26/PM/S/1898/E/0/875/0/0

Date		Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
11/7/2011	7:00	- 18:00	11.00	COMP	36	В	Р	X	FRAC STG 1)WHP 1930 PSI, BRK 3987 PSI @ 4.9
									BPM. ISIP 2788 PSI, FG .72
									CALC HOLES OPEN @ 38.0 BPM @ 5589 PSI = 74%
e de la companya de La companya de la co									HOLES OPEN.
									ISIP 3089 PSI, FG .75, NPI 301 PSI.
									MP 6361 PSI, MR 50.9 BPM, AP 5818 PSI, AR 49.2
									ВРМ
									PUMPED 30/50 OTTAWA SAND IN THIS STAGE
									X-OVER FOR W L
									PERF STG 2)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN,

PERF STG 2)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 9750 P/U PERF AS PER PERF DESIGN. POOH. X-OVER FOR FRAC CREW

FRAC STG 2)WHP 1900 PSI, BRK 5380 PSI @ 4.8 BPM. ISIP 3044 PSI, FG .75 CALC HOLES OPEN @ 35.5 BPM @ 6341 PSI = 60% HOLES OPEN. ISIP 3183 PSI, FG .77, NPI 139 PSI. MP 6567 PSI, MR 51.2 BPM, AP 6240 PSI, AR 45.8 BPM PUMPED 30/50 OTTAWA SAND IN THIS STAGE X-OVER FOR W L

PERF STG 3)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 9618' P/U PERF AS PER PERF DESIGN. POOH. X-OVER FOR FRAC CREW

FRAC STG 3)WHP 2000 PSI, BRK 4385 PSI @ 4.7 BPM. ISIP 3024 PSI, FG .76 CALC HOLES OPEN @ 50.4 BPM @ 6305 PSI = 89% HOLES OPEN. ISIP 3151 PSI, FG .77, NPI 127 PSI. MP 6413 PSI, MR 51.5 BPM, AP 5945 PSI, AR 50.4 BPM PUMPED 30/50 OTTAWA SAND IN THIS STAGE X-OVER FOR W L

PERF STG 4)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 9084' P/U PERF AS PER PERF DESIGN. POOH. X-OVER FOR FRAC CREW

FRAC STG 4)WHP 1400 PSI, BRK 3975 PSI @ 4.7 BPM. ISIP 2940 PSI, FG .77 CALC HOLES OPEN @ 38.5 BPM @ 5891 PSI = 64% HOLES OPEN. ISIP 3114 PSI, FG .79, NPI 174 PSI. MP 6692 PSI, MR 49.9 BPM, AP 6074 PSI, AR 44.9 BPM PUMPED 30/50 OTTAWA SAND IN THIS STAGE X-OVER FOR W L

PERF STG 5)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN,

						KIES RI Summa	EGION iry Report			
Well: NBU 921-20	IT YELLOW		Spud Co	nductor: 7	7/2/2011		Spud Date: 7/1	3/2011		
Project: UTAH-UII	NTAH		Site: NBL	J 921-20I	PAD	·		Rig Name No: ROYAL WELL SERVICE 2/2		
Event: COMPLET	ION		Start Dat	e: 11/4/20	)11			End Date: 11/15/2011		
Active Datum: RK Level)	B @4,854.00usft (ab	oove Mean Se	a	UWI: NE	98/E/0/875/0/0					
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation		
								23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 8750' P/U PERF AS PER PERF DESIGN. POOH. X-OVER FOR FRAC CREW		
								FRAC STG 5)WHP 1200 PSI, BRK 6404 PSI @ 4.7 BPM. ISIP 2465 PSI, FG .72 CALC HOLES OPEN @ 48.4 BPM @ 5920 PSI = 77% HOLES OPEN. ISIP 2861 PSI, FG .77, NPI 396 PSI. MP 6449 PSI, MR 51.4 BPM, AP 5849 PSI, AR 49.5 BPM PUMPED 30/50 OTTAWA SAND IN THIS STAGE X-OVER FOR W L		
								PERF STG 6)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 8564' P/U PERF AS PER PERF DESIGN. POOH. SWIFN		

12/14/2011

2:54:20PM

# **Operation Summary Report**

Well: NBU 921-20IT YELLOW	Spud Conductor: 7/2/2011	Spud Date: 7/13/2011
Project: UTAH-UINTAH	Site: NBU 921-20I PAD	Rig Name No: ROYAL WELL SERVICE 2/2
Event: COMPLETION	Start Date: 11/4/2011	End Date: 11/15/2011

Event: COMPLE	ent: COMPLETION Start D							End Date: 11/15/2011			
Active Datum: R .evel)	KB @4,854.00usft (a	bove Mean Se	a	UWI: NE	E/SE/0/9/	S/21/E/20/0	)/0/26/PM/S/189	98/E/0/875/0/0			
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation			
11/8/2011	7:00 - 18:00	11.00	COMP	36	В	P		FRAC STG 6)WHP 1675 PSI, BRK 3426 PSI @ 4.3 BPM. ISIP 2556 PSI, FG .74 CALC HOLES OPEN @ 50.8 BPM @ 5668 PSI = 90% HOLES OPEN. ISIP 2702 PSI, FG .76, NPI 146 PSI. MP 6335 PSI, MR 51.5 BPM, AP 5473 PSI, AR 50.3 BPM PUMPED 30/50 OTTAWA SAND IN THIS STAGE X-OVER FOR W L			
								PERF STG 7)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 8350' P/U PERF AS PER PERF DESIGN.			

POOH. X-OVER FOR FRAC CREW

FRAC STG 7)WHP 778 PSI, BRK 3105 PSI @ 4.6 BPM. ISIP 2128 PSI, FG .70. CALC HOLES OPEN @ 51.0 BPM @ 5239 PSI = 90% HOLES OPEN. ISIP 2659 PSI, FG .76, NPI 531 PSI. MP 6364 PSI, MR 51.5 BPM, AP 4928 PSI, AR 50.5 PUMPED 30/50 OTTAWA SAND IN THIS STAGE X-OVER FOR W L

PERF STG 8)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 8190 ' P/U PERF AS PER PERF DESIGN. POOH. X-OVER FOR FRAC CREW

FRAC STG 8)WHP 2190 PSI, BRK 2785 PSI @ 6.5 BPM. ISIP 2413 PSI, FG .74 CALC HOLES OPEN @ 50.5 BPM @ 5603 PSI = 86% HOLES OPEN. ISIP 2712 PSI, FG .78, NPI 299 PSI. MP 5741 PSI, MR 51.5 BPM, AP 4862 PSI, AR 50.8 **BPM** PUMPED 30/50 OTTAWA SAND IN THIS STAGE X-OVER FOR W L

PERF STG 9)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 7951' P/U PERF AS PER PERF DESIGN. POOH. X-OVER FOR FRAC CREW

FRAC STG 9)WHP 460 PSI, BRK 2944 PSI @ 4.5 BPM. ISIP 2259 PSI, FG .73 CALC HOLES OPEN @ 48.5 BPM @ 5639 PSI = 76% HOLES OPEN. ISIP 2737 PSI, FG .79, NPI 478 PSI. MP 6429 PSI, MR 51.0 BPM, AP 5554 PSI, AR 49.9 PUMPED 30/50 OTTAWA SAND IN THIS STAGE X-OVER FOR W L

PU 4 1/2 CBP RIH SET KILL PLUG @ 7779 POOH RD

				U	S ROC	KIES RE	EGION	
				Opera	ition S	umma	ry Report	
Well: NBU 921-	20IT YELLOW		Spud Co	nductor: 7	7/2/2011		Spud Date: 7/1	3/2011
Project: UTAH-l	JINTAH		Site: NBI	J 921-201	PAD			Rig Name No: ROYAL WELL SERVICE 2/2
Event: COMPLE	TION		Start Dat	te: 11/4/20	)11			End Date: 11/15/2011
Active Datum: R Level)	RKB @4,854.00usft (	above Mean S	ea	UWI: NI	E/SE/0/9/	S/21/E/20/	/0/0/26/PM/S/189	8/E/0/875/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
						-		WLSWI
								TOTAL SAND = 163,740 #
11/11/2011	12:30 - 12:45	0.25	COMP	48		Р		TOTAL TOTAL CLFL = 8639 BBLS HSM & JSA W/ROYAL WELL SERVICE
	12:45 - 18:00	5.25	COMP	30	Α	P		MIRU - SPOT EQUIP. SICP 0 PSI. NDWH, NU BOPS.
								RU FLOOR & TBG EQUIP. PU 3 7/8" BIT, POBS & XN NIPPLE. RIH ON 204 JTS 2 3/8" TBG. TAG FILL @ 7735'. LD 2 JTS. EOT @ 7676'. SWI - SDFWE.
11/14/2011	6:45 - 7:00	0.25	COMP	48		P		PREP TO D/0 CBPs. HSM & JSA W/ROYAL WELL SERVICE.

12/14/2011

2:54:20PM

			ion Sur	mmary Report							
Well: NBU 921-20IT YELLOW	Spud Co	nductor: 7/2	2/2011	Section of the Control of the Contro	Spud Date: 7/13	3/2011		S. C. S.	-994046 (196 <u>5)</u>		
Project: UTAH-UINTAH	Site: NBU	J 921-20I P	AD			Rig Na	me No: RO	YAL WELL	SERVICE 2/2		
Event: COMPLETION	Start Dat	e: 11/4/201	1				ate: 11/15/2				
Active Datum: RKB @4,854.00usft (above Mean Se Level)		T		1/E/20/0	/0/26/PM/S/1898						
Date Time Duration Start-End (hr)	Phase	A CONTRACTOR OF THE PARTY OF TH	Sub F Code	P/U	MD From (usft)		n d	Operati	on		
7:00 - 7:00 0.00	COMP	44	C	P		EST CIR MIN. (18	C. PT CSC	& BOPs TO	PWR SWVL 6 3000 PSI & FILL @ 7753	HOLD 15	
						HALCO PSI	CBP @ FCP	C/O FILL	D/O CBP	DIFF	
						CBP #1 PSI	@ 7779'	26 FT	08 MIN	700	
						CBP #2 PSI CBP #3	@ 7951' 100 PSI @ 8190'	30 FT 25 FT	06 MIN 05 MIN	800 700	
						PSI CBP #4	300 PSI @ 8350'	24 FT	03 MIN	700	
						PSI CBP #5	200 PSI @ 8564'	30 FT	04 MIN	200	
		-				PSI CBP #6	550 PSI @ 8750'	18 FT	03 MIN	1000	
						PSI CBP #7 PSI	450 PSI @ 9104' 500 PSI	21 FT	07 MIN	1200	
						CBP #8 PSI	@ 9618' 500 PSI	31 FT	04 MIN	500	
						CBP #9 PSI	@ 9750' 600 PSI	22 FT	08 MIN	1200	
						@ 10,15 CIRC WI EQUIP. FLOAT). 3/8" 4.7; EQUIP. W/10 BB	8). FCP = 7 ELL CLEAN LD 18 JTS LND TBG # L80 TBG ND BOP, 1 BLS TMAC (	700 PSI. PM I. R/D PWR ON FLOAT, 6 ON HNGR ' @ 9599.46'. DROP BALL, @ 2600 PSI.	TO 10,150'.  IP 20 BBLS TI SWVL, R/U TO (22 TOTAL C W/302 JTS NI R/D FLOOR NUWH. PM WAIT 30 MIN VELL TO F.B.	MAC & IBG DN EW 2 & TBG P OFF BIT	
						TBG 30 XN NIPF EOT @ (324 JTS	PLE 1,33' 02 JTS = 95 PLE @ 95 9 9599.46' 6 DLVRD - 0	97.08' ) JTS RTND	)	""	
4400	nie o ÷	. عد				TWR = 1		SITP = 0 PSI.			
14:00 - 14:00 0.00	PROD	50	·			11/14/11		_	1400 HR ON PD, CP 2164#		

FORMATION TOP DETAILS Project: UTAH - UTM (feet), NAD27, Zone 12N Site: UINTAH\_NBU 921-20I PAD Well: NBU 921-20IT TVDPath Formation Top Wasatch Top Mesaverde MVU21 MDPath 4964.01 7931.02 4964.51 7931.56 Wellbore: NBU 921-20IT Section: 8970.02 9464.02 8970.58 9464.58 SHL: MVL1 Design: NBU 921-20IT (wp03) Latitude: 40.019508 Longitude: -109.568592 GL: 4828.01 KB: 26' rkb + 4828' gl @ 4854.01ft (H&P 298) Azimuths to True North Magnetic North: 11.37 CASING DETAILS WELL DETAILS: NBU 921-20IT Magnetic Field Strength: 52572.3snT TVD Name Size 9 5/8" 9-5/8 Dip Angle: 65.93° Date: 4/23/2009 Model: IGRF200510 Ground Level: 4828.01 2714.01 2714.43 +N/-S 0.00 +E/-W Northing 0.00 14536367.50 Easting 2041187.57 Latittude Longitude -109.568592 Slot 40.019508 DESIGN TARGET DETAILS Northing 14536367.50 TVD +N/-S +E/-W Easting 2041187.57 Latitude 40.019508 Longitude -109.568592 Shape Circle (Radius: 25.00) NBU 921-20IT BHL 10199.02 0.00 0.00 SECTION DETAILS MD Inc Azi TVD +N/-S Dleg +E/-W **TFace VSect** 2682.01 1.56 170.39 2681.59 -7.85 36.72 0.00 0.00 36.76 2815.01 1.56 37.33 170.39 2814.55 -11.42 0.00 0.00 37.38 2901.37 0.31 288.53 2900.90 -12.5037.30 2.00 170.93 37.36 10199.60 0.31 288.53 10199.02 0.00 0.00 0.00 0.00 0.00 600 1000 400 2000 200 9 5/8" 12000 3000 0 9 5/8" 4000 Vertical Depth (2000 ft/in) NBU 921-20J4B5 -200 South(-)/North(+) (400 ft/in) 2000 5000 2000 NBU 921-2 Top Wasatch -400 ੁ<sub></sub> 6000 9 5/8 -600 3000 7000 -800 8000 Top Mesaverde -1000 9000 MVU21 -1200 MVL1 10000 NBU 921-20IT (wp03) -1400 -3000 -2000 -1000 1000 2000 3000 -1000 -800 -600 -400 -200 200 400

West(-)/East(+) (400 ft/in)

Vertical Section at 90.29° (2000 ft/in)

Survey Report

Company: US ROCKIES REGION PLANNING Project: UTAH - UTM (feet), NAD27, Zone 12N

Site: UINTAH\_NBU 921-20I PAD

Well: NBU 921-20IT Wellbore **NBU 921-20IT** NBU 921-20IT Design:

Local Co-ordinate Reference:

Well NBU 921-20IT **TVD Reference:** 

26' rkb + 4828' gl @ 4854.01ft (H&P 298) MD Reference: 26' rkb + 4828' gl @ 4854.01ft (H&P 298) North Reference:

Survey Calculation Method: Minimum Curvature

Database: edmp

**Project** UTAH - UTM (feet), NAD27, Zone 12N

Map System: Universal Transverse Mercator (US Survey Feet)

NAD 1927 (NADCON CONUS) Geo Datum: Map Zone: Zone 12N (114 W to 108 W)

System Datum: Mean Sea Level

Site UINTAH\_NBU 921-20I PAD Site Position: Northing: 14,536,367.50 usft Latitude: 40.019508 From: Lat/Long Easting: 2,041,187.57 usft Longitude: -109.568592 Position Uncertainty: 0.00 ft Slot Radius: 0 " **Grid Convergence:** 0.92 °

Well **NBU 921-20IT Well Position** +N/-S 0.00 ft Northing: 14,536,367,50 usft Latitude: 40.019508 +E/-W 0.00 ft Easting: 2,041,187.57 usft Longitude: -109.568592 **Position Uncertainty** 0.00 ft Wellhead Elevation: ft Ground Level: 4,828.01 ft

Wellbore **NBU 921-20IT** Magnetics **Model Name** Sample Date Declination Dip Angle Field Strength (°) (°) (nT) IGRF200510 4/23/2009 11.37 65.93 52,572

Design NBU 921-20IT Audit Notes: Version: 1.0 Phase: ACTUAL Tie On Depth: 22.00 Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (ft) (ft) (°) 22,00 0.00 0.00 90.29

Survey Program 10/4/2011 Date From To (ft) (ft) Survey (Wellbore) **Tool Name** Description 2,682.01 Survey #1 (NBU 921-20IT) 168.00 MWD MWD - Standard 2,755.01 10,195.02 Survey #2 (NBU 921-20IT) MWD MWD - Standard

Survey									
Measured Depth (ft)	inclination (°)	Azimuth	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
22.00	0.00	0.00	22.00	0.00	0.00	0.00	0.00	0.00	0.00
168.00	0.78	66.43	168.00	0.40	0.91	0.91	0.53	0.53	0.00
372,00	1.19	87.52	371.97	1.04	4.30	4.29	0.27	0,20	10.34
522.00	1.25	76.64	521.93	1.49	7.45	7.44	0.16	0.04	-7.25
822.00	1.00	70.02	821.88	3.14	13.09	13.08	0.09	-0.08	-2.21
1,122.00	1.00	72.27	1,121.83	4.83	18.05	18.02	0.01	0.00	0.75
1,422.00	0.88	94.52	1,421.79	5.45	22.84	22.81	0.13	-0.04	7.42
1,722.00	1.13	99.27	1,721.75	4.79	28.05	28.03	0.09	0.08	1.58
2,022.00	0.69	127.52	2,021.71	3.21	32.40	32.39	0.21	-0.15	9.42
2,322.00	1.00	160.51	2,321.68	-0.36	34.71	34.71	0.19	0.10	11.00

Survey Report

Company:

US ROCKIES REGION PLANNING

Project:

UTAH - UTM (feet), NAD27, Zone 12N

Site:

UINTAH\_NBU 921-20I PAD

Well: Wellbore: Design: NBU 921-20IT NBU 921-20IT NBU 921-20IT Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference:

Survey Calculation Method: Database:

Well NBU 921-20IT

26' rkb + 4828' gl @ 4854.01ft (H&P 298) 26' rkb + 4828' gl @ 4854.01ft (H&P 298)

True

Minimum Curvature

Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth (ft)	Inclination (°)	Azimuth (°)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Section (ft)	Rate (°/100usft)	Rate (°/100usft)	Rate (°/100usft)
2 622 04	4.00				seema is also delicated to the second				
2,622.01	1.38	166.64	2,621.61	-6.34	36.42	36.45	0.13	0.13	2.04
2,682.01 tie on point	1.56	170.39	2,681.60	-7.85	36.72	36.76	0.34	0.30	6.25
2,755.01	1.56	181.96	0.754.57	0.00					
2,849.01	1.78	181.93	2,754.57 2,848.53	-9.82 -12.56	36.85	36.90	0.43	0.00	15.85
2,944.01	1.63	219.03	2,943.49	-12.56 -15.08	36.76 35.86	36.82 35.94	0.23	0.23	-0.03
-,		210.00	2,040.40	-13.00	33.00	35.94	1.15	-0.16	39.05
3,038.01	2.56	250.37	3,037.43	-16.82	33.04	33.13	1.54	0.99	33.34
3,133.01	1.19	236.87	3,132.38	-18.08	30.22	30.31	1.51	-1.44	-14.21
3,227.01	0.50	344.00	3,226,37	-18,22	29,29	29.38	1.51	-0.73	113.97
3,322.01	1.56	329.75	3,321.35	-16.70	28.52	28.60	1.14	1.12	-15.00
3,417.01	0.94	297.00	3,416.33	-15.23	27.17	27.25	0.97	-0.65	-34.47
3,511.01	0.88	238.75	3,510.32	-15.25	25.87	25.95	0.94	-0.06	-61.97
3,606.01	1.19	282.62	3,605.31	-15.42	24.28	24.36	0.87	0.33	46.18
3,700.01	1.06	329.50	3,699.29	-14,45	22.89	22,96	0.96	-0.14	49.87
3,794.01	0.56	294.25	3,793.28	-13.52	22.03	22.10	0.73	-0.53	-37.50
3,889.01	0.50	243.00	3,888.28	-13.51	21.24	21.31	0.49	-0.06	-53.95
3,983,01	0.50	292.50	3,982.28	-13.54	20.40	00.50	0.45		
4,078.01	1.13	333.12	4,077.27	-13.5 <del>4</del> -12.55	20.49 19.69	20.56	0.45	0.00	52.66
4,172.01	1.06	294.50	4,171.25	-12.35	18,48	19.75	0.86	0.66	42.76
4,267.01	0.50	265.62	4,266.24	-11.03	17.26	18.53 17.32	0.77	-0.07	-41.09
4,361.01	0.31	342.12	4,360.24	-10.82	16.78	16.83	0.70 0.56	-0.59 -0.20	-30.40 81.38
4 450 04									
4,456.01 4,550.01	0.75	351.25	4,455.24	-9.96	16.60	16.65	0.47	0.46	9.61
4,645.01	0.44 1.25	165.25 271.12	4,549.23	-9.70	16.60	16.65	1.26	-0.33	185.11
4,740.01	1.44	293.87	4,644.23	-10.03	15.66	15.71	1.51	0.85	111.44
4,834.01	1.06	249.50	4,739.20 4,833.18	-9.53 -9.36	13.53 11.64	13.58 11.68	0.59	0.20	23.95
1,00 1.01	.,,,,	240.00	4,000.10	-0.50	11.04	11.00	1.07	-0.40	-47.20
4,928.01	1.06	205.62	4,927.17	-10.44	10.45	10.50	0.84	0.00	-46.68
5,023.01	1.06	245.87	5,022.15	-11.60	9.26	9.32	0.77	0.00	42.37
5,118.01	2.19	286.12	5,117.11	-11.45	6.72	6.78	1.62	1.19	42.37
5,212.01	1.94	282.25	5,211.05	-10.62	3.44	3.49	0.30	-0.27	-4.12
5,307.01	1.44	279.62	5,306.01	-10.07	0.69	0.74	0.53	-0.53	-2.77
5,401.01	2.13	332.62	5,399.97	-8.33	-1.28	-1.24	1.82	0.73	56.38
5,495.01	1.88	334.75	5,493.91	-5.38	-2.74	-2.71	0.28	-0.27	2.27
5,590.01	1.63	338.37	5,588.87	-2.71	-3.90	-3.89	0.29	-0.26	3.81
5,684.01	0.81	335.50	5,682.85	-0.87	-4.67	-4.67	0.87	-0.87	-3.05
5,779.01	1.88	337.12	5,777.82	1.18	-5.56	-5.56	1.13	1,13	1.71
5,873.01	1.63	343.25	5,871.78	3.88	-6.54	-6.56	0.33	-0.27	6.52
5,968.01	1.44	337.62	5,966.74	6.28	-7.38	-7.42	0.33	-0.27 -0.20	-5.93
6,062.01	1.31	347.37	6,060.72	8.42	-8.07	-8.11	0.28	-0.20	10.37
6,156.01	0.88	346.62	6,154.70	10.17	-8.47	-8.52	0.46	-0.14	-0.80
6,251.01	0.94	355.50	6,249.69	11.66	-8.70	-8.76	0.16	0.06	9.35
6 9 4 5 0 4	2.22	050.05	0.000						
6,345.01	0.69 0.31	356.22	6,343.68	12.99	-8.80	-8.86	0.27	-0.27	0.77

Survey Report

Company:

US ROCKIES REGION PLANNING

Project:

UTAH - UTM (feet), NAD27, Zone 12N

Site:

UINTAH\_NBU 921-20I PAD

Well: Wellbore: Design: NBU 921-20IT NBU 921-20IT NBU 921-20IT Local Co-ordinate Reference:

TVD Reference:

MD Reference: North Reference:

Survey Calculation Method:

Database:

Well NBU 921-20IT

26' rkb + 4828' gl @ 4854.01ft (H&P 298) 26' rkb + 4828' gl @ 4854.01ft (H&P 298)

True

Minimum Curvature

Measured			Vertical			Vertical	Dogleg	Bulld	Turn
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Section	Rate	Rate	Rate
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100usft)	(°/100usft)	(°/100usft)
6,534.01	0.00	2.75	6,532.67	14.05	-9.00	-9.07	0.33	-0.33	0.00
6,628.01	0.19	124.62	6,626.67	13.96	-8.87	-8.94	0.20	0.20	0.00
6,723.01	0.63	161.75	6,721.67	13.37	-8.58	-8.64	0.52	0.46	39.08
6,818.01	0.50	345.62	6,816.67	13.28	-8.52	-8.58	1.19	0.14	405.40
6,912.01	0.19	267.12	6,910.67	13.67	-8.77	-8.84	0.53	-0.14	-185.40
7,007.01	0.56	201.75	7,005.67	13.23	-9.10	-9.17		-0.33	-83.51
7,101.01	0.75	206.50	7,099.66	12.25	-9.10 -9.55	-9.17 -9.61	0.54	0.39	-68.81
7,196.01	0.31	355.87	7,194.66	11.95	-9.84	-9.90	0.21 1.08	0.20 -0.46	5.05 157.23
7,291.01	0.60	252.50	7 000 00	40 ===					.07.20
	0.69	353.50	7,289.66	12.77	-9.93	-9.99	0.40	0.40	-2.49
7,385.01	0.44	39.25	7,383.65	13.62	-9.76	-9.83	0.53	-0.27	48.67
7,480.02	1.69	328.87	7,478.64	15.10	-10.26	-10.33	1.68	1.32	-74.08
7,574.02	1.13	355.57	7,572.61	17.21	-11.04	-11.13	0.90	-0.60	28.40
7,669.02	0.81	359.00	7,667.60	18.81	-11.13	-11.22	0.34	-0.34	3.61
7,763.02	0.63	9.62	7,761.59	19.99	-11.05	-11.15	0.24	-0.19	11.30
7,858.02	0.25	46.99	7,856,59	20.64	-10.81	-10,92	0.48	-0.40	39.34
7,952.02	0.25	88.00	7,950.58	20.79	-10.46	-10.56	0.19	0.00	43.63
8,047.02	0.50	100.62	8,045.58	20.72	-9.84	-9,95	0.28	0.26	13.28
8,142.02	0.69	104.75	8,140.58	20.50	-8.88	-8.99	0.20	0.20	4.35
8,236.02	0.94	94.25	8,234.57	20.30	-7.57	-7.67	0.31	0.27	44.47
8,331.02	1.38	99.25	8,329.55	20.06	-5.66	-7.07 -5.76	0.47	0.46	-11.17
8,426.02	1.00	122.50	8,424.53	19.43	-3.83	-3.93	0.47	-0.40	5.26
8,520.02	0.63	136.12	8,518.52	18.61	-2,78	-2.88	0.44		24.47
8,614.02	0.88	139.75	8,612.51	17.69	-1.96	-2.05	0.44	-0.39 0.27	14.49 3.86
9 700 00	0.40	00.00	0.707.54						
8,709.02	0.19	30.00	8,707.51	17.27	-1.41	-1.50	1.01	-0.73	-115.53
8,804.02	0.25	332.37	8,802.51	17.59	-1.43	-1.51	0.23	0.06	-60.66
8,898.02	0.31	288.00	8,896.51	17.85	-1.76	-1.85	0.23	0.06	-47.20
8,992.02	0.19	236,12	8,990.51	17.84	-2.13	-2.22	0.26	-0.13	-55.19
9,087.02	0.13	329.75	9,085.51	17.85	-2.32	-2.41	0.25	-0.06	98.56
9,181.02	0.25	313.12	9,179.51	18.08	-2.52	-2.61	0.14	0.13	-17.69
9,275.02	0.44	260.00	9,273.50	18.16	-3.03	-3.12	0.37	0.20	-56.51
9,370.02	0.50	216.62	9,368.50	17.76	-3,63	-3.72	0.37	0.06	-45.66
9,464.02	0.50	177.50	9,462.50	17.02	-3.86	-3.95	0.36	0.00	-41.62
9,559.02	0.44	140.50	9,557.50	16.33	-3,61	-3.69	0.32	-0.06	-38.95
9,653.02	0.13	117.50	9,651.49	16.00	-3.29	-3,37	0.35	-0.33	-24.47
9,748.02	0.31	95.75	9,746.49	15.92	-2.94	-3.02	0.21	0.19	-22.89
9,842.02	0.44	99.50	9,840.49	15.84	-2.33	-2.41	0.14	0.14	3.99
9,937.02	0.38	104.75	9,935.49	15.70	-1.66	-1.74	0.07	-0.06	5.53
10,032.02	0.75	122.37	10,030.49	15.29	-0.83	-0.91	0.43	0.39	18.55
10,126,02	1.34	112.55	10,124.47	14 50	0.70	0.00	2.05		
•	1.34	112.55	10,124.47	14.53	0.70	0.63	0.65	0.63	-10.45
last mwd 10,195.02	4 77	105.04	10 100 11	40.04			:		
projection	1.77	105.34	10,193.44	13.94	2.48	2.40	0.68	0.62	-10.45

Survey Report

Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 12N

 Site:
 UINTAH\_NBU 921-201 PAD

 Well:
 NBU 921-201T

Wellbore: NBU 921-20IT Design: NBU 921-20IT Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Database:

Well NBU 921-20IT

26' rkb + 4828' gl @ 4854.01ft (H&P 298) 26' rkb + 4828' gl @ 4854.01ft (H&P 298)

True

Minimum Curvature

10,195.02	10,193.44	13.94	2.48	projection
10,126.02	10,124.47	14.53	0.70	last mwd
2,682.01	2,681.60	-7.85	36.72	tie on point
/ Measured Depth (ft)	Vertical Depth (ft)	Local Coord +N/-S (ft)	inates +E/-W (ft)	Comment
Design Annotations	Ars everereses reincurs.	ing ing paggarang dalah da Banggarang dalah dal	ern, visi estafosende benevess	1997-1997-19-10 Akirda N. 19-20-19-19-19-19-19-19-19-19-19-19-19-19-19-

I Observation of Decision	_	
Checked By:	Approved By:	D-4
onconta by.	Approved By:	Date:

# **US ROCKIES REGION PLANNING**

UTAH - UTM (feet), NAD27, Zone 12N UINTAH\_NBU 921-20I PAD NBU 921-20IT

**NBU 921-20IT** 

Design: NBU 921-20IT

**Survey Report - Geographic** 

04 October, 2011

Survey Report - Geographic

US ROCKIES REGION PLANNING Company: Project:

**NBU 921-20IT** 

UTAH - UTM (feet), NAD27, Zone 12N UINTAH\_NBU 921-20I PAD

Site: Well: **NBU 921-20IT** Wellbore: **NBU 921-20IT** 

Design:

Local Co-ordinate Reference:

Well NBU 921-20IT TVD Reference: 26' rkb + 4828' gl @ 4854.01ft (H&P 298) MD Reference: 26' rkb + 4828' gl @ 4854.01ft (H&P 298) North Reference: True

**Survey Calculation Method:** Minimum Curvature

Database: edmp

Project UTAH - UTM (feet), NAD27, Zone 12N

Universal Transverse Mercator (US Survey Feet) Map System:

NAD 1927 (NADCON CONUS) Geo Datum: Map Zone: Zone 12N (114 W to 108 W)

Mean Sea Level

Site UINTAH\_NBU 921-20I PAD

Site Position: Northing: 14,536,367.50 usft Latitude: 40.019508 From: Lat/Long Easting: 2,041,187.57 usft Longitude: -109.568592 **Position Uncertainty:** 0.00 ft Slot Radius: 0 ' **Grid Convergence:** 0.92

System Datum:

Well **NBU 921-20IT Well Position** +N/-S 0.00 ft Northing: 14,536,367.50 usft Latitude: 40.019508 +E/-W 0.00 ft Easting: 2,041,187.57 usft Longitude: -109.568592 **Position Uncertainty** 0.00 ft Wellhead Elevation: ft **Ground Level:** 4,828.01 ft

Wellbore **NBU 921-20IT** Magnetics **Model Name** Sample Date Declination Dip Angle Field Strength (°) (°) (nT) IGRF200510 4/23/2009 11.37 65,93 52,572

Design **NBU 921-20IT** Audit Notes: Version: 1.0 Phase: ACTUAL Tie On Depth: 22.00 **Vertical Section:** Depth From (TVD) +N/-S +E/-W Direction (ft) (ft) (ft) (°) 22.00 0.00 0.00 90.29

Survey Program 10/4/2011 Date From To (ft) (ft) Survey (Wellbore) **Tool Name** Description 2,682.01 Survey #1 (NBU 921-20IT) 168.00 MWD MWD - Standard 2,755.01 10,195.02 Survey #2 (NBU 921-20IT) MWD MWD - Standard

Measured Depth (ft)	inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
22.00	0.00	0.00	22.00	0.00	0.00	14,536,367,50	2,041,187,57	40.019508	-109,568
168.00	0.78	66.43	168.00	0.40	0.91	14,536,367,92	2,041,188.47	40.019509	-109.568
372.00	1.19	87.52	371.97	1.04	4.30	14,536,368.62	2,041,191,85	40.019511	-109.568
522.00	1.25	76.64	521.93	1.49	7.45	14,536,369,11	2.041.194.99	40.019512	-109.568
822.00	1.00	70.02	821.88	3.14	13.09	14,536,370,85	2,041,200,61	40.019517	-109.568
1,122.00	1.00	72.27	1,121.83	4.83	18.05	14,536,372.62	2,041,205,53	40.019521	-109.568
1,422.00	0.88	94.52	1,421.79	5.45	22.84	14,536,373.32	2,041,210,31	40.019523	-109.568
1,722.00	1.13	99.27	1,721.75	4.79	28.05	14,536,372.74	2,041,215.54	40.019521	-109.568
2,022.00	0.69	127.52	2,021.71	3.21	32,40	14,536,371.24	2,041,219.92	40.019517	-109.568
2,322.00	1.00	160.51	2,321.68	-0.36	34.71	14,536,367.71	2,041,222,28	40.019507	-109.568
2,622.01	1.38	166.64	2,621,61	-6.34	36.42	14.536.361.75	2,041,224.08	40,019491	-109,568

Survey Report - Geographic

Company:

US ROCKIES REGION PLANNING

Project:

UTAH - UTM (feet), NAD27, Zone 12N

Site:

Design:

UINTAH\_NBU 921-20I PAD

Well: Wellbore:

NBU 921-20IT NBU 921-20IT NBU 921-20IT Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference:

Survey Calculation Method:

Database:

Well NBU 921-20IT

26' rkb + 4828' gl @ 4854.01ft (H&P 298) 26' rkb + 4828' gl @ 4854.01ft (H&P 298)

True

Minimum Curvature

	NBU 921-2	n ah samaa sanaa garasa Mara mada Sahasa sasa	e transmission operations		Database:		edmp	er mentre men mentre kan direk i jenerat menerika	ir varandiren en en entre la
еу									
	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Map Northing	Map Easting		
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)	Latitude	Longitude
2,682.01	1.56	170.39	2,681.60	-7.85	36.72	14,536,360.25	2,041,224.41	40.019487	-109.568
tie on poi									
2,755.01	1.56	181.96	2,754.57	-9.82	36.85	14,536,358.28	2,041,224.57	40.019481	-109.56
2,849.01 2,944.01	1.78	181.93	2,848.53	-12.56	36.76	14,536,355.54	2,041,224.53	40.019474	-109.56
2,944.01 3,038.01	1.63 2.56	219.03 250.37	2,943.49	-15.08	35.86	14,536,353.00	2,041,223.67	40.019467	-109.56
3,133.01	1.19	236.87	3,037.43 3,132.38	-16.82 -18.08	33.04	14,536,351.21	2,041,220.88	40.019462	-109.56
3,227.01	0.50	344.00	3,226.37	-18.22	30.22 29.29	14,536,349.91	2,041,218.07	40.019458	-109.56
3,322.01	1.56	329.75	3,321.35	-16.22 -16.70	28.52	14,536,349.76	2,041,217.14	40.019458	-109.56
3,417.01	0.94	297.00	3,416.33	-15.23	27.17	14,536,351.26 14,536,352.71	2,041,216.35	40.019462	-109.56
3,511.01	0.88	238.75	3,510.32	-15.25	25.87	14,536,352.67	2,041,214.98 2,041,213.68	40.019466	-109.56
3,606.01	1.19	282.62	3,605.31	-15.42	24.28	14,536,352.48	2,041,212.10	40.019466 40.019466	-109.56
3,700.01	1.06	329.50	3,699,29	-14.45	22.89	14,536,353.42	2,041,210.69	40.019468	-109.56
3,794.01	0.56	294.25	3,793.28	-13.52	22.03	14,536,354.34	2,041,209.81	40.019471	-109.56 -109.56
3,889.01	0.50	243.00	3,888,28	-13.51	21.24	14,536,354.33	2,041,209.02	40.019471	-109.56
3,983.01	0.50	292.50	3,982.28	-13.54	20.49	14,536,354,29	2,041,208.28	40.019471	-109.56
4,078.01	1.13	333.12	4,077.27	-12.55	19.69	14,536,355.27	2,041,207.45	40.019474	-109.56
4,172.01	1.06	294.50	4,171.25	-11.36	18.48	14,536,356.44	2,041,206.22	40.019477	-109,56
4,267.01	0.50	265.62	4,266.24	-11.03	17.26	14,536,356.75	2,041,205.01	40.019478	-109.56
4,361.01	0.31	342.12	4,360.24	-10.82	16.78	14,536,356,96	2,041,204.52	40.019478	-109.56
4,456.01	0.75	351.25	4,455.24	-9.96	16.60	14,536,357.81	2,041,204.33	40.019481	-109.56
4,550.01	0.44	165.25	4,549.23	-9.70	16.60	14,536,358.07	2,041,204.32	40.019481	-109.56
4,645.01	1.25	271.12	4,644.23	-10.03	15.66	14,536,357.72	2,041,203.39	40.019481	-109.56
4,740.01	1.44	293.87	4,739.20	-9.53	13.53	14,536,358.19	2,041,201.25	40.019482	-109.56
4,834.01	1.06	249.50	4,833,18	-9.36	11.64	14,536,358.34	2,041,199.35	40.019482	-109.56
4,928.01	1.06	205.62	4,927.17	-10.44	10.45	14,536,357.23	2,041,198.18	40,019479	-109.56
5,023.01	1.06	245.87	5,022.15	-11.60	9.26	14,536,356.06	2,041,197.02	40.019476	-109.56
5,118.01	2.19	286.12	5,117.11	-11.45	6.72	14,536,356.16	2,041,194.47	40.019477	-109,56
5,212.01 5,307.01	1.94 1.44	282.25	5,211.05	-10.62	3.44	14,536,356.94	2,041,191.18	40.019479	-109.56
5,401.01	2.13	279.62 332.62	5,306.01	-10.07	0.69	14,536,357.44	2,041,188.42	40.019480	-109.56
5,495.01	1.88	334.75	5,399.97 5,493.91	-8.33 5.30	-1.28	14,536,359.16	2,041,186.42	40.019485	-109.56
5,590.01	1.63	338.37	5,588.87	-5,38 <b>-</b> 2,71	-2.74 -3.90	14,536,362.08	2,041,184.91	40.019493	-109.56
5,684.01	0.81	335.50	5,682.85	-0.87	-3.90 -4.67	14,536,364.73	2,041,183.71	40.019501	-109,56
5,779.01	1.88	337,12	5,777.82	1.18	-4.07 -5.56	14,536,366.56 14,536,368.59	2,041,182.91	40.019506	-109.56
5,873.01	1,63	343.25	5,871.78	3.88	-6.54	14,536,371.28	2,041,181.99 2,041,180.97	40.019511 40.019519	-109.56
5,968.01	1.44	337.62	5,966.74	6.28	-7.38	14,536,373.66	2,041,180.08	40.019519	-109.56
6,062.01	1.31	347.37	6,060.72	8.42	-8.07	14,536,375.79	2,041,179.36	40.019531	-109.56 -109.56
6,156.01	0.88	346.62	6,154.70	10.17	-8.47	14,536,377.54	2,041,178.93	40.019536	-109.56
6,251.01	0.94	355.50	6,249.69	11.66	-8.70	14,536,379.02	2,041,178.68	40.019540	-109.56
6,345.01	0.69	356.22	6,343.68	12.99	-8.80	14,536,380.35	2,041,178.56	40.019544	-109.56
6,440.01	0.31	341.62	6,438.67	13.80	-8.92	14,536,381.16	2,041,178.43	40.019546	-109.56
6,534.01	0.00	2.75	6,532.67	14.05	-9.00	14,536,381,40	2,041,178.35	40.019547	-109.56
6,628.01	0.19	124.62	6,626.67	13.96	-8.87	14,536,381.32	2,041,178.48	40.019546	-109.56
6,723.01	0.63	161.75	6,721.67	13.37	-8.58	14,536,380.73	2,041,178.78	40.019545	-109.56
6,818.01	0.50	345.62	6,816.67	13.28	-8.52	14,536,380.64	2,041,178.84	40.019545	-109.56
6,912.01	0.19	267.12	6,910.67	13.67	-8.77	14,536,381.03	2,041,178.58	40.019546	-109.56
7,007.01	0.56	201.75	7,005.67	13.23	-9.10	14,536,380,58	2,041,178.25	40.019544	-109.56
7,101.01	0.75	206.50	7,099.66	12.25	-9.55	14,536,379.60	2,041,177.83	40.019542	-109.56
7,196.01	0.31	355.87	7,194.66	11.95	-9.84	14,536,379.29	2,041,177.53	40.019541	-109.56
7,291.01	0.69	353.50	7,289.66	12.77	-9.93	14,536,380.12	2,041,177.44	40.019543	-109.56
7,385.01	0.44	39.25	7,383.65	13.62	-9.76	14,536,380,96	2,041,177.59	40.019545	-109.56
7,480.02	1.69	328.87 355.57	7,478.64	15.10	-10.26	14,536,382.43	2,041,177.07	40.019550	-109.56
7,574.02 7,669.02	1.13 0.81	355,57 359.00	7,572.61 7,667.60	17.21 18.81	-11.04 -11.13	14,536,384.53 14,536,386.14	2,041,176.25 2,041,176.14	40.019555 40.019560	-109.56 -109.56

Survey Report - Geographic

Company:

US ROCKIES REGION PLANNING

Project:

UTAH - UTM (feet), NAD27, Zone 12N

Site:

UINTAH\_NBU 921-20I PAD

Well: Wellbore: NBU 921-20IT

NBU 921-20IT

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference: Survey Calculation Method:

Well NBU 921-20IT

26' rkb + 4828' gl @ 4854.01ft (H&P 298)

26' rkb + 4828' gl @ 4854.01ft (H&P 298) True

Minimum Curvature

esign:	NBU 921-2	OIT	COMMON CONTRACTOR OF STREET	in the first constraint and the	Database:		edmp		
urvey		en delenante. Samon en en en					Cert marie - Para Labo - Mercale - Para Labo - Mercale - Mercale - Mercale - Mercale - Mercale - Mercale - Merc Mercale - Mercale - Merc	CMC (1 is a thickle file as e reconstruction of a measurement of the as WERROR (1 is a measurement of the construction of the	en en esperant e par en
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
7,763.02	0.63	9.62	7,761.59	19,99	-11.05	14,536,387.31	2,041,176,20	40.019563	-109.5686
7,858.02	0.25	46.99	7,856,59	20.64	-10.81	14,536,387.97	2,041,176,42	40.019565	-109.5686
7,952.02	0.25	88.00	7,950.58	20.79	-10.46	14,536,388.12	2,041,176.78	40.019565	-109,5686
8,047.02	0.50	100.62	8,045.58	20.72	-9.84	14,536,388.06	2,041,177.39	40.019565	-109.5686
8,142.02	0.69	104.75	8,140.58	20.50	-8.88	14,536,387,86	2,041,178,36	40,019564	-109.5686
8,236.02	0.94	94.25	8,234.57	20.30	-7.57	14,536,387,68	2,041,179,68	40.019564	-109.5686
8,331.02	1.38	99.25	8,329.55	20.06	-5.66	14,536,387,47	2,041,181.58	40.019563	-109.5686
8,426.02	1.00	122.50	8,424.53	19.43	-3.83	14,536,386.87	2,041,183,42	40,019561	-109.5686
8,520.02	0.63	136.12	8,518.52	18.61	-2.78	14,536,386.07	2,041,184.49	40.019559	-109.5686
8,614.02	0.88	139.75	8,612.51	17.69	-1.96	14,536,385,16	2,041,185.33	40.019557	-109.5685
8,709.02	0.19	30.00	8,707.51	17.27	-1.41	14,536,384,75	2,041,185.88	40,019556	-109,5685
8,804.02	0.25	332.37	8,802.51	17.59	-1.43	14,536,385.07	2,041,185.86	40,019556	-109.5685
8,898.02	0.31	288.00	8,896.51	17.85	-1.76	14,536,385,32	2,041,185,52	40.019557	-109.5688
8,992.02	0.19	236.12	8,990.51	17.84	-2.13	14,536,385.31	2,041,185.15	40.019557	-109.5686
9,087.02	0.13	329.75	9,085.51	17.85	-2.32	14,536,385,31	2,041,184.96	40,019557	-109.5686
9,181.02	0.25	313.12	9,179.51	18.08	-2.52	14,536,385,54	2,041,184.76	40,019558	-109,5686
9,275.02	0.44	260,00	9,273.50	18,16	-3.03	14,536,385,61	2,041,184.25	40.019558	-109.5686
9,370.02	0.50	216.62	9,368.50	17.76	-3.63	14,536,385,20	2,041,183,65	40.019557	-109,5686
9,464.02	0.50	177.50	9,462.50	17.02	-3.86	14,536,384.46	2,041,183,43	40.019555	-109.5686
9,559.02	0.44	140.50	9,557.50	16.33	-3.61	14,536,383,77	2,041,183.70	40.019553	-109.5686
9,653.02	0.13	117.50	9,651.49	16.00	-3.29	14,536,383,45	2,041,184.02	40.019552	-109.5686
9,748.02	0.31	95.75	9,746.49	15.92	-2.94	14,536,383,38	2,041,184.38	40.019552	-109,5686
9,842.02	0.44	99.50	9,840.49	15.84	-2.33	14,536,383.30	2,041,184.99	40.019552	-109.5686
9,937.02	0.38	104.75	9,935.49	15.70	-1.66	14,536,383.17	2,041,185.65	40.019551	-109.5685
10,032.02	0.75	122.37	10,030.49	15.29	-0.83	14,536,382.77	2,041,186.49	40,019550	-109.5685
10,126.02	1.34	112.55	10,124.47	14.53	0.70	14,536,382,05	2,041,188.04	40.019548	-109.5685
last mwd	l					, ,	, ,		100,0000

Measured         Vertical         Local Coordinates           Depth         Depth         +N/-S         +E/-W           (ft)         (ft)         (ft)         Comment           2,682.01         2,681.60         -7.85         36.72         tie on point	10,126.02 10,195,02	10,124.47 10,193.44	14.53 13.94	0.70 2.48	last mwd projection
Depth Depth +N/-S +E/-W	· ·	•		36.72	tie on point
	Depth	Depth	+N/-S	+E/-W	Comment

2.48

14,536,381.48

2,041,189.82

40.019546

•		
Checked By:	Approved By:	Date:

10,195.02

projection

1.77

105.34

10,193.44

13.94

-109.568583